US009317186B2

(12) **United States Patent**
MacLean et al.

(10) **Patent No.: US 9,317,186 B2**
(45) **Date of Patent: Apr. 19, 2016**

(54) **DOCUMENT PUBLISHING MODEL**

(71) Applicant: **Apple Inc.**, Cupertino, CA (US)

(72) Inventors: **Alexander C. MacLean**, San Jose, CA (US); **Jay C. Capela**, Santa Cruz, CA (US); **Charles J. Migos**, Millbrae, CA (US); **Markus Hagele**, San Francisco, CA (US); **Christopher E. Rudolph**, Vancouver (CA)

(73) Assignee: **APPLE INC.**, Cupertino, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 174 days.

(21) Appl. No.: **13/657,823**

(22) Filed: **Oct. 22, 2012**

(65) **Prior Publication Data**

US 2014/0115508 A1 Apr. 24, 2014

(51) **Int. Cl.**

G06F 3/048	(2013.01)
G06F 3/0483	(2013.01)
G06F 17/21	(2006.01)
G06F 17/27	(2006.01)
G06F 17/30	(2006.01)

(52) **U.S. Cl.**
CPC ***G06F 3/0483*** (2013.01); ***G06F 17/212*** (2013.01); ***G06F 17/2725*** (2013.01); ***G06F 17/30011*** (2013.01)

(58) **Field of Classification Search**
None
See application file for complete search history.

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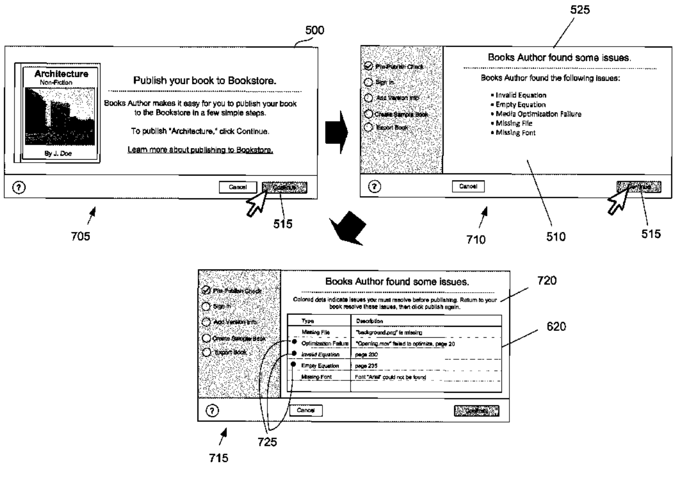
Primary Examiner — Matt Kim
Assistant Examiner — Mahelet Shiberou
(74) *Attorney, Agent, or Firm* — Adeli LLP

(57) **ABSTRACT**

Some embodiments described herein provide a content publishing tool for publishing documents to a content distribution system. The content publishing tool in some embodiments guides the application's user through different operations in preparing a document for publication. In some embodiments, these operations include one or more of the following: (1) analyzing the document for errors, (2) specifying a version number for the document, (3) creating a sample document, and (4) exporting the document for publication.

17 Claims, 28 Drawing Sheets



Publish your book to Bookstore.

Books Author makes it easy for you to publish your book to the Bookstore in a few simple steps.

To publish "Architecture," click Continue.

Learn more about publishing to Bookstore.

Books Author found some issues.

Books Author found the following issues:

- Invalid Equation
- Empty Equation
- Media Optimization Failure
- Missing File
- Missing Font

Books Author found some issues.

Colored dots indicate issues you must resolve before publishing. Return to your book resolve these issues, then click publish again.

	Type	Description
	Missing File	"background.png" is missing
●	Optimization Failure	"Opening.mov" failed to optimize, page 20
●	Invalid Equation	page 230
●	Empty Equation	page 235
	Missing Font	Font "Arial" could not be found

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2014/0115449	A1	4/2014	Migos et al.	

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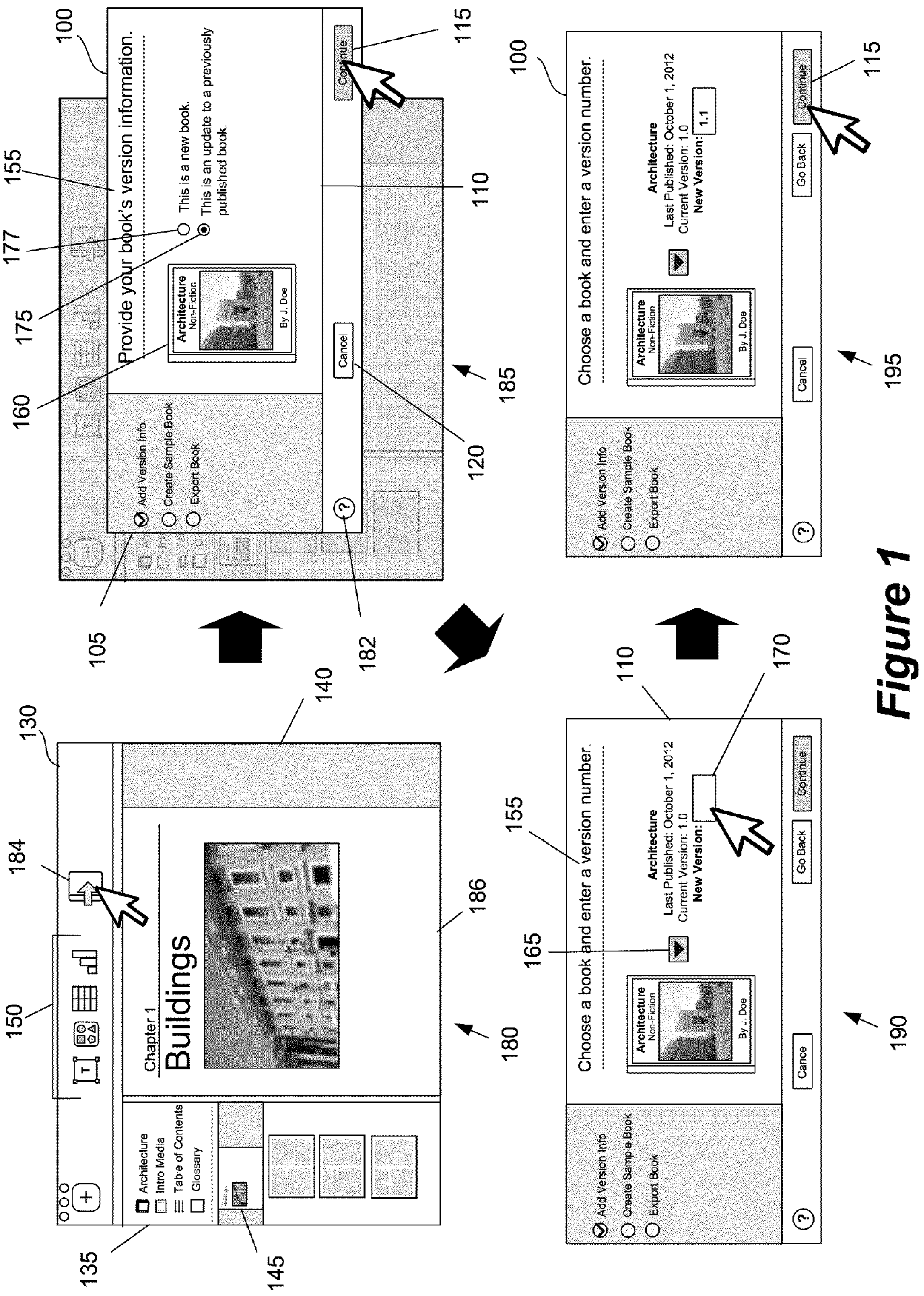
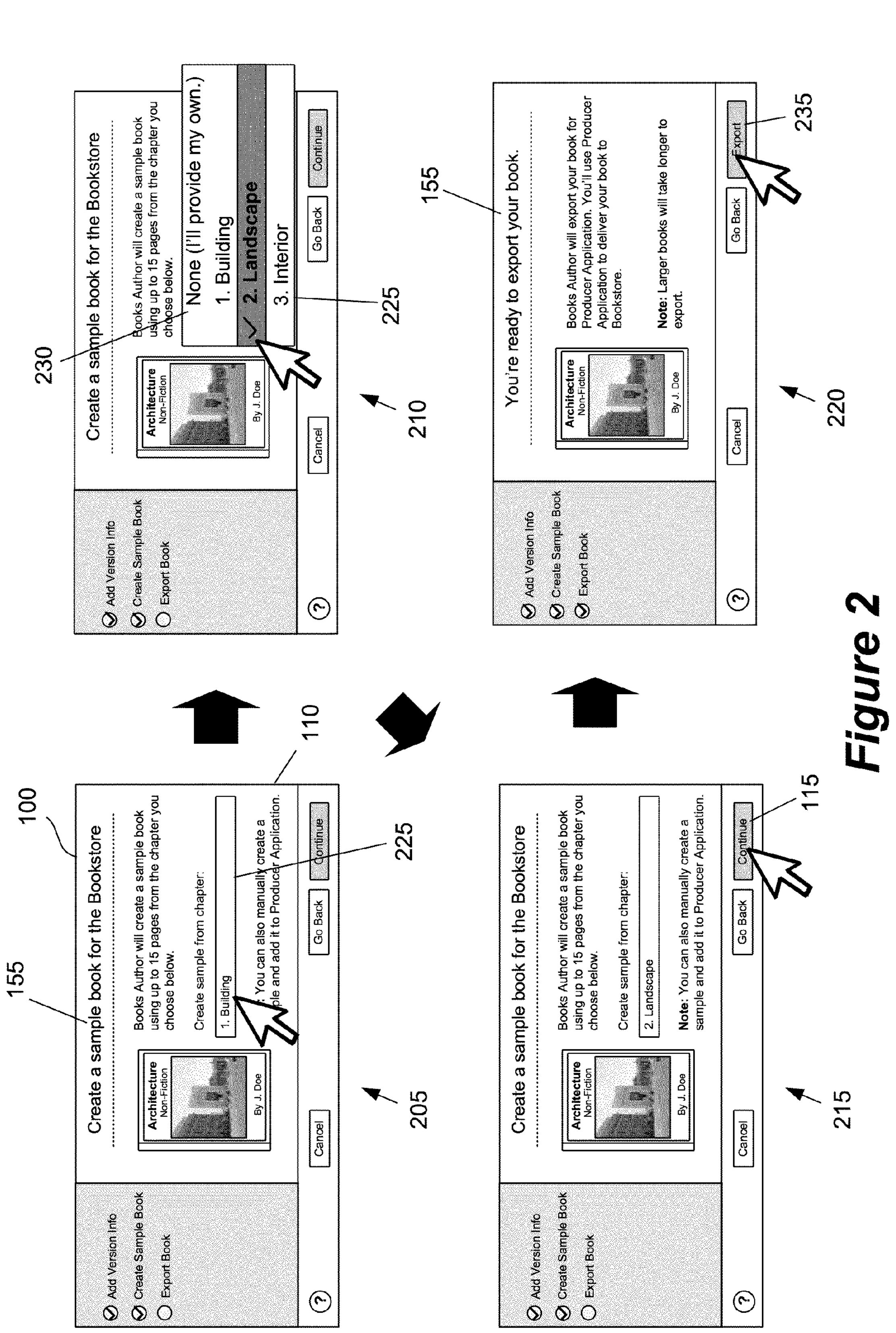


Provide your book's version information.

Choose a book and enter a version number.

Architecture
Last Published: October 1, 2012
Current Version: 1.0
New Version: 1.1

Figure 1



Create a sample book for the Bookstore

Books Author will create a sample book using up to 15 pages from the chapter you choose below.

Create sample from chapter:

Note: You can also manually create a sample and add it to Producer Application.

You're ready to export your book.

Books Author will export your book for Producer Application. You'll use Producer Application to deliver your book to Bookstore.

Note: Larger books will take longer to export.

Figure 2

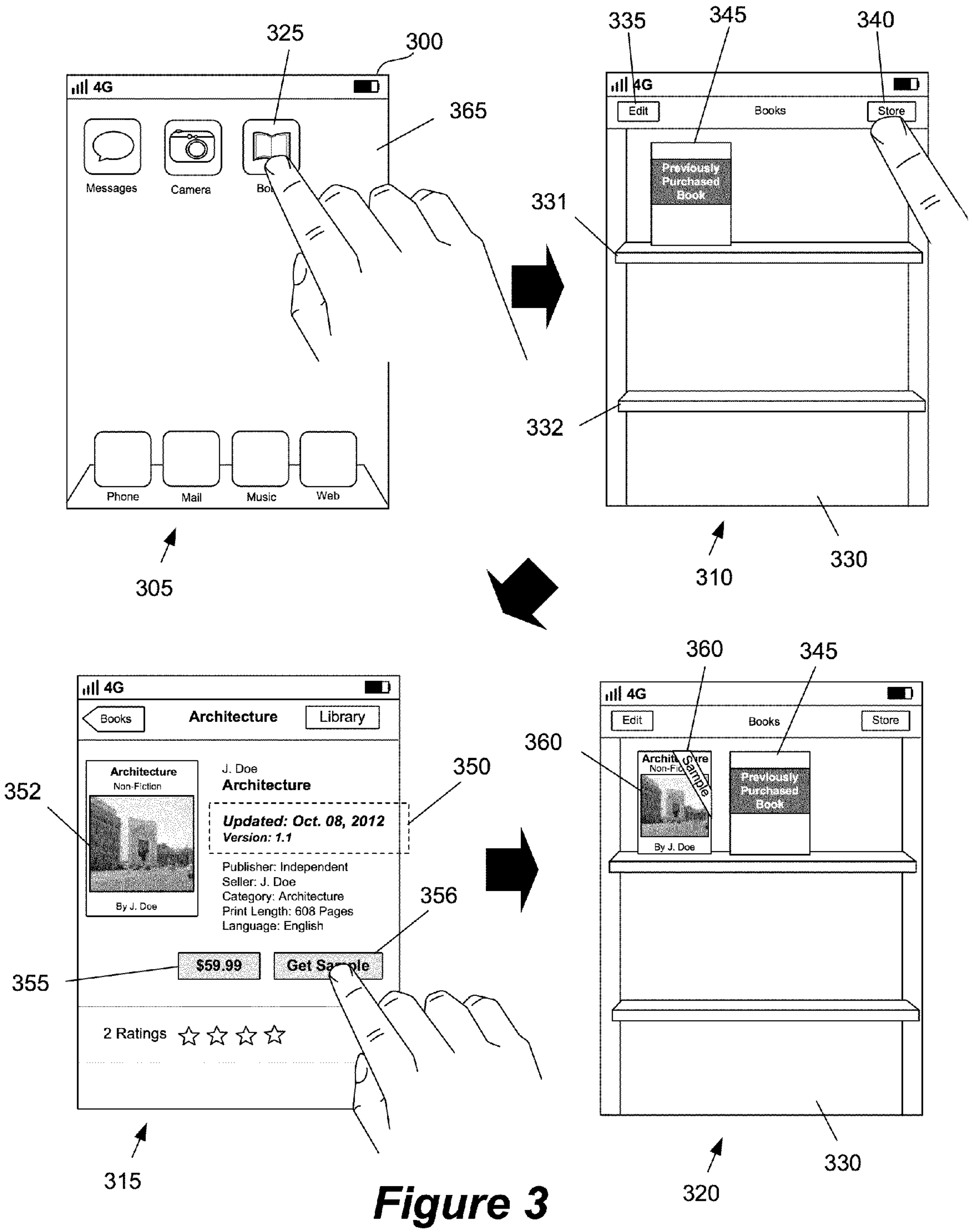

325
300
365
ıll 4G
Messages
Camera
Bo
Phone
Mail
Music
Web
305
335
345
340
ıll 4G
Edit
Books
Store
331
Previously Purchased Book
332
310
330
ıll 4G
Books
Architecture
Library
352
Architecture
Non-Fiction
By J. Doe
J. Doe
Architecture
350
Updated: Oct. 08, 2012
Version: 1.1
Publisher: Independent
Seller: J. Doe
Category: Architecture
Print Length: 608 Pages
Language: English
356
355
$59.99
Get Sample
2 Ratings ☆☆☆☆
315
360
345
ıll 4G
Edit
Books
Store
360
Architecture
Non-Fiction
Sample
By J. Doe
Previously Purchased Book
320
330

Figure 3

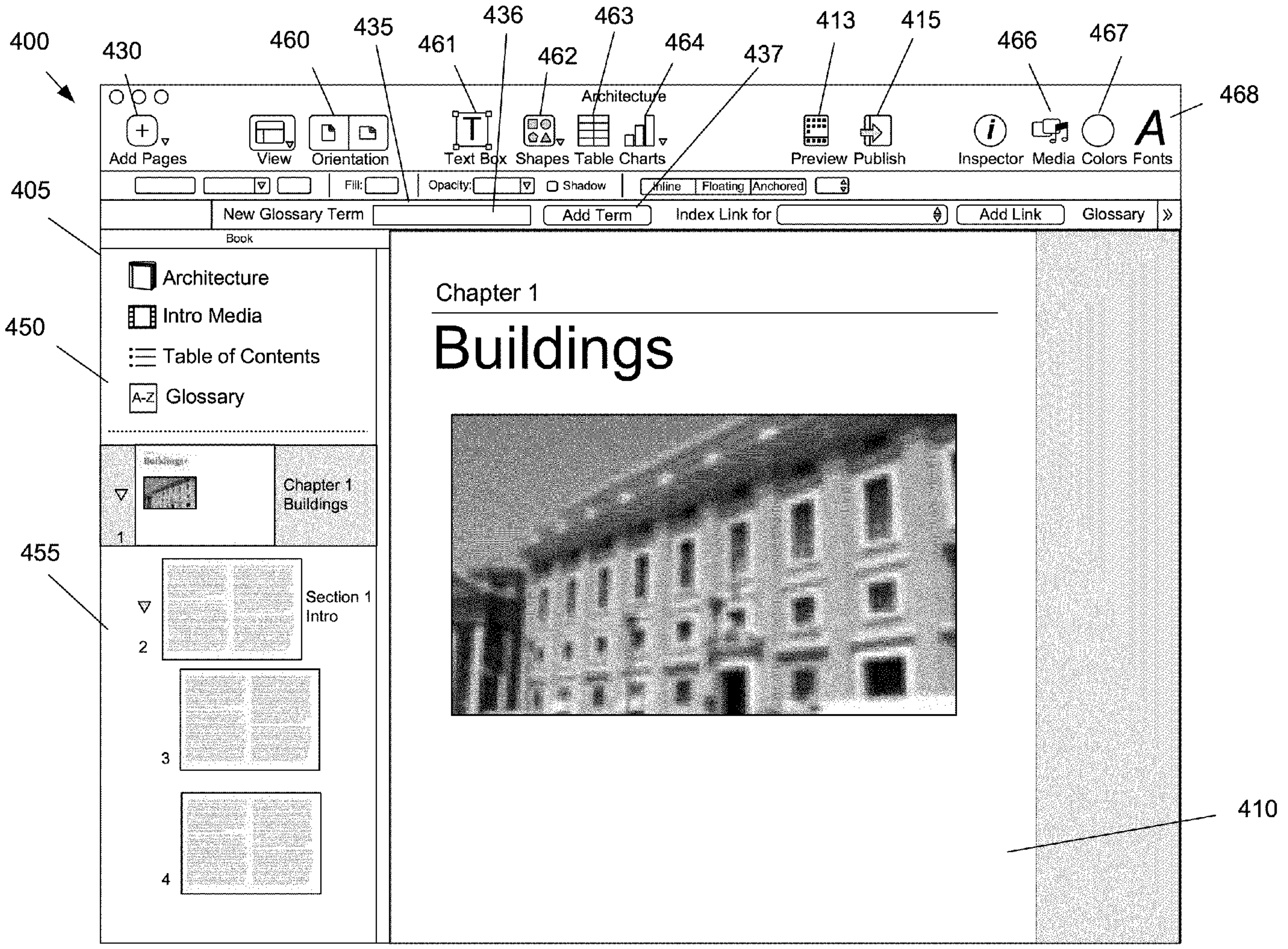
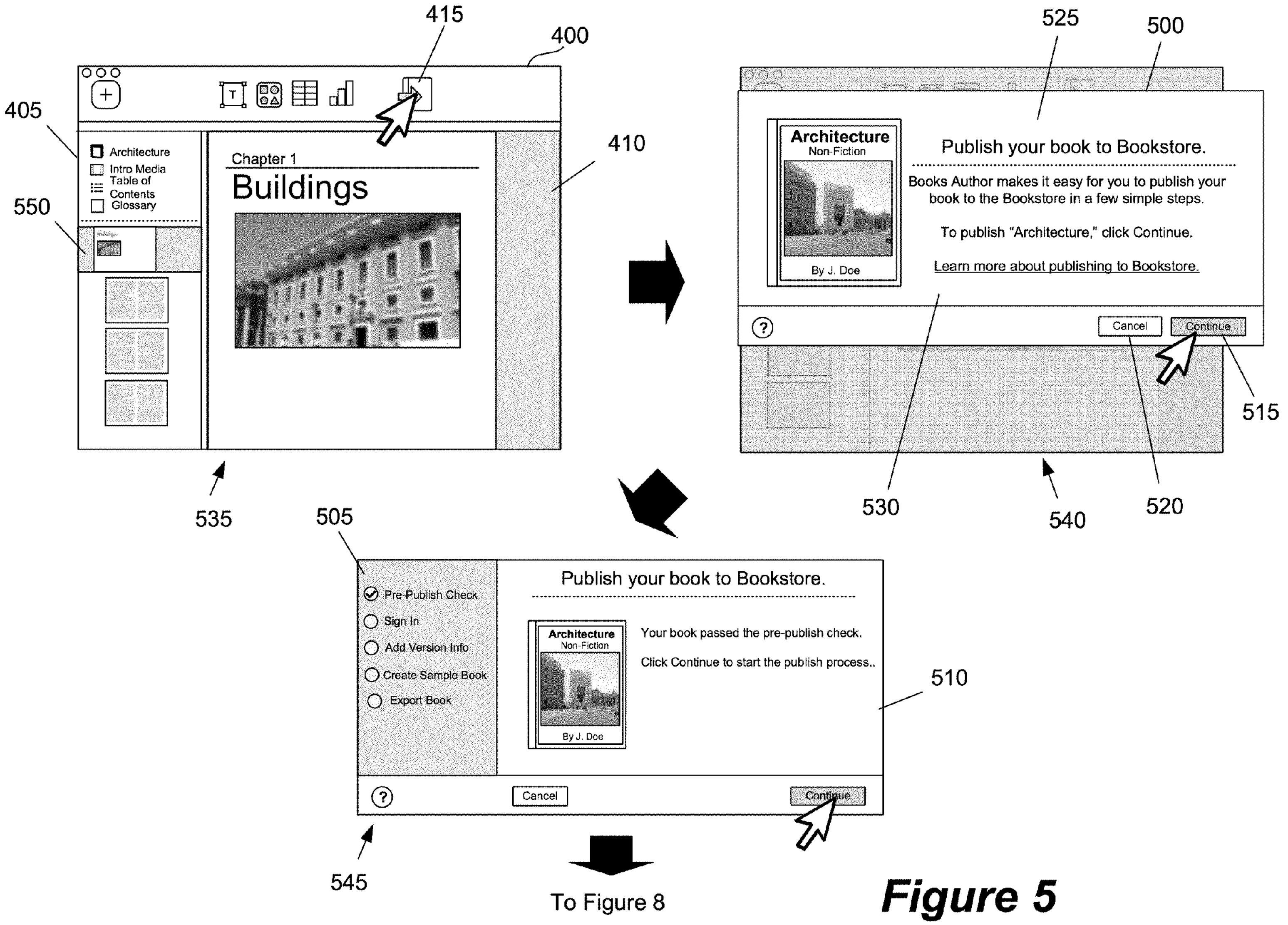

400
430
460
435
461
436
462
463
464
437
413
415
466
467
468
Architecture
Add Pages
View
Orientation
Text Box
Shapes
Table
Charts
Preview
Publish
Inspector
Media
Colors
Fonts
Fill:
Opacity:
□ Shadow
Inline
Floating
Anchored
New Glossary Term
Add Term
Index Link for
Add Link
Glossary
Book
405
450
455
Architecture
Intro Media
Table of Contents
Glossary
Buildings
Chapter 1
Buildings
1
Section 1
Intro
2
3
4
Chapter 1
Buildings
410

Figure 4



Publish your book to Bookstore.

Books Author makes it easy for you to publish your book to the Bookstore in a few simple steps.

To publish "Architecture," click Continue.

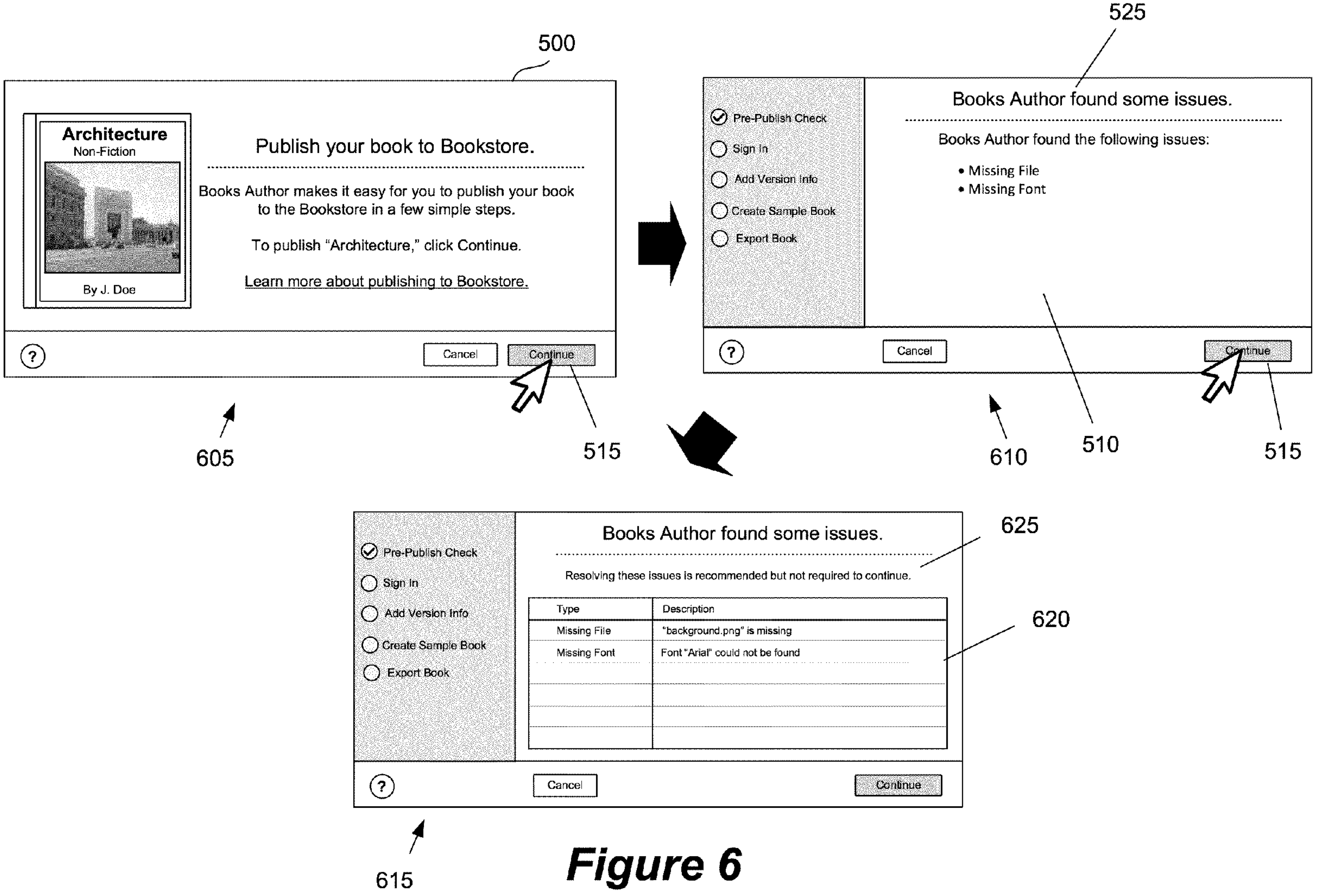
Learn more about publishing to Bookstore.

Publish your book to Bookstore.

Your book passed the pre-publish check.

Click Continue to start the publish process..

Figure 5



Architecture
Non-Fiction
By J. Doe

Publish your book to Bookstore.

Books Author makes it easy for you to publish your book to the Bookstore in a few simple steps.

To publish "Architecture," click Continue.

Learn more about publishing to Bookstore.

Books Author found some issues.

Books Author found the following issues:

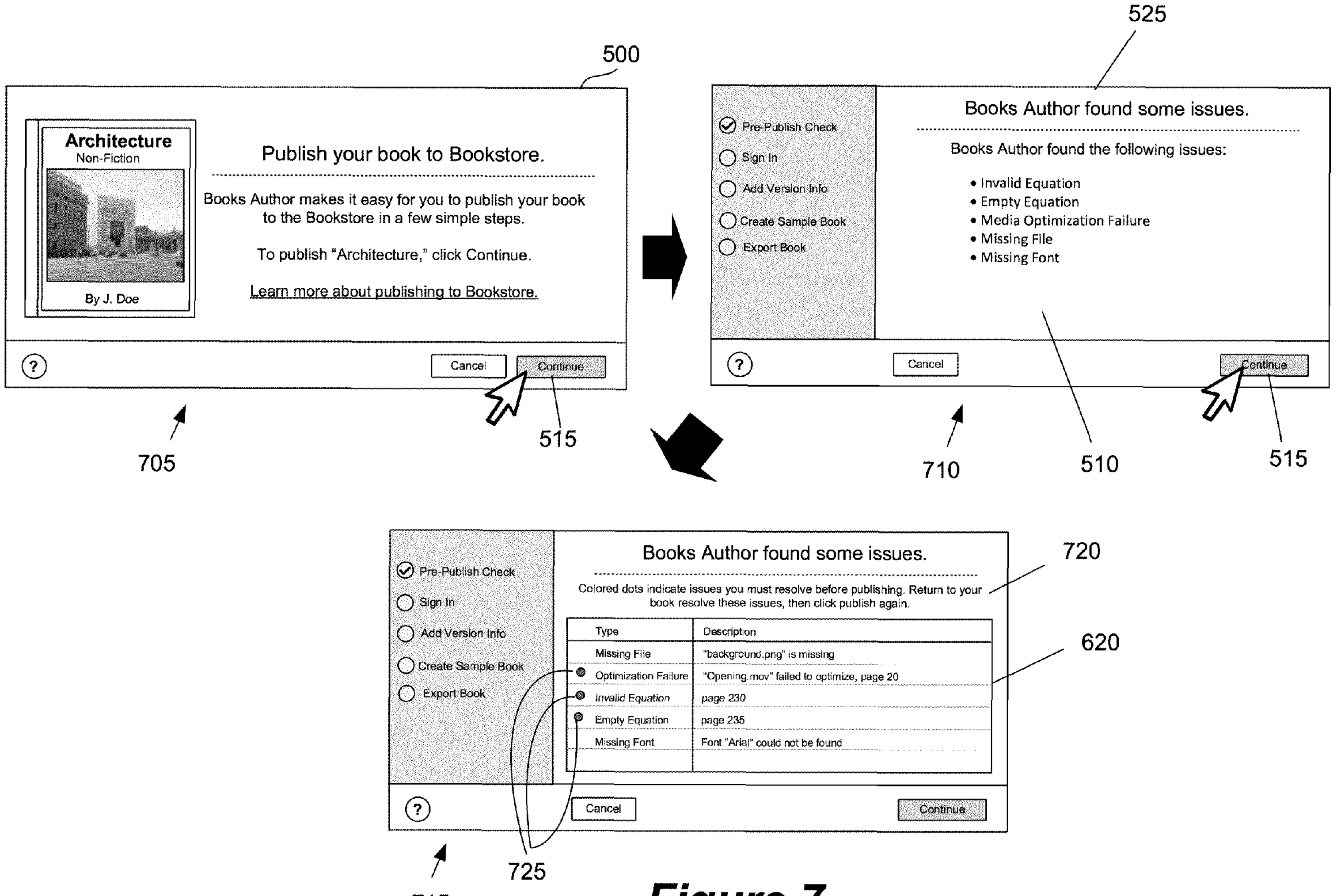
- Missing File
- Missing Font

Books Author found some issues.

Resolving these issues is recommended but not required to continue.

Type	Description
Missing File	"background.png" is missing
Missing Font	Font "Arial" could not be found

Figure 6



Publish your book to Bookstore.

Books Author makes it easy for you to publish your book to the Bookstore in a few simple steps.

To publish "Architecture," click Continue.

Learn more about publishing to Bookstore.

Books Author found some issues.

Books Author found the following issues:

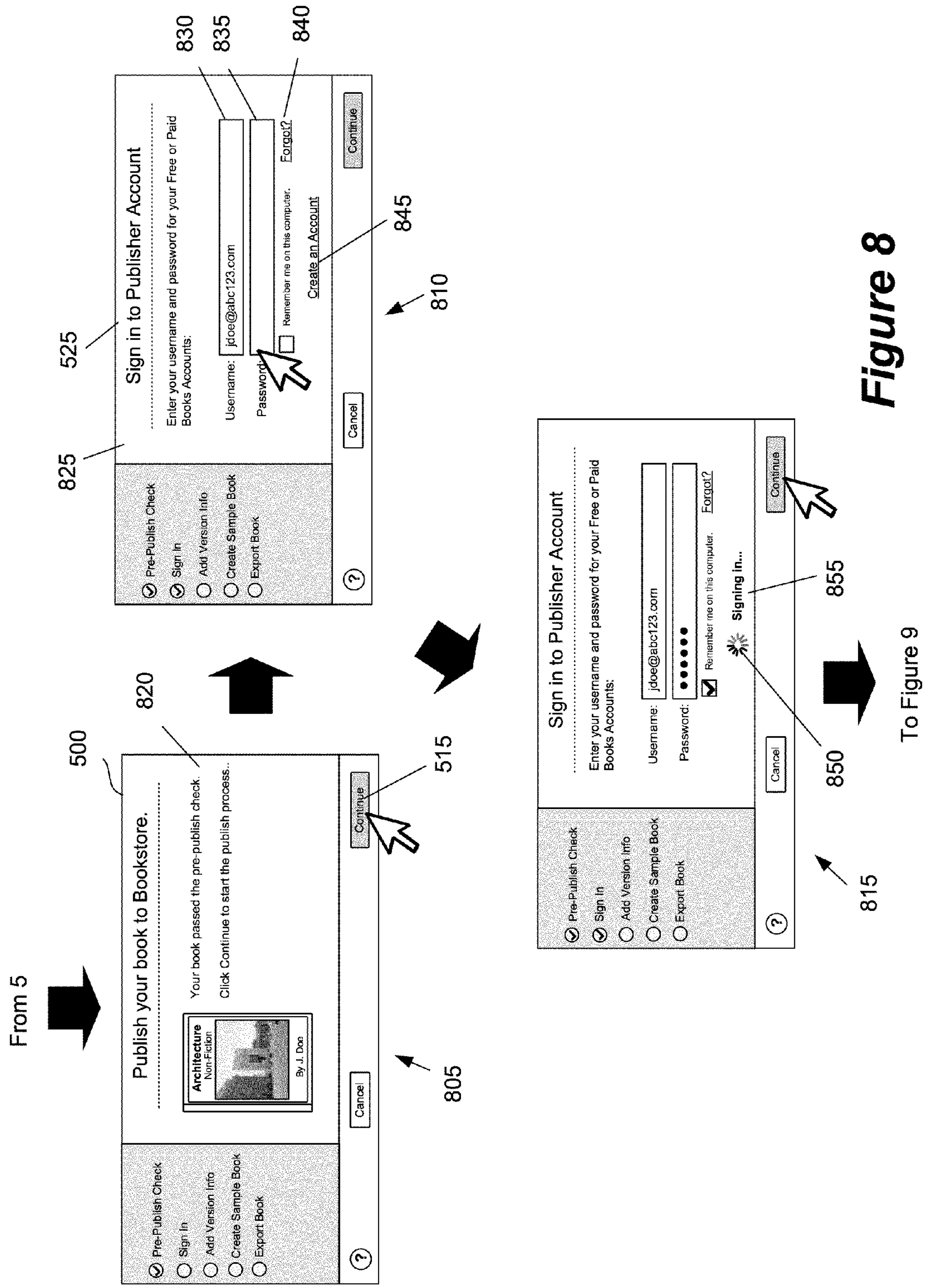
- Invalid Equation
- Empty Equation
- Media Optimization Failure
- Missing File
- Missing Font

Books Author found some issues.

Colored dots indicate issues you must resolve before publishing. Return to your book resolve these issues, then click publish again.

Type	Description
Missing File	"background.png" is missing
● Optimization Failure	"Opening.mov" failed to optimize, page 20
● *Invalid Equation*	*page 230*
● Empty Equation	page 235
Missing Font	Font "Arial" could not be found

Figure 7



✓ Pre-Publish Check
○ Sign In
○ Add Version Info
○ Create Sample Book
○ Export Book

Publish your book to Bookstore.

Architecture
Non-Fiction
By J. Doe

Your book passed the pre-publish check.

Click Continue to start the publish process.

? Cancel Continue

✓ Pre-Publish Check
✓ Sign In
○ Add Version Info
○ Create Sample Book
○ Export Book

Sign in to Publisher Account

Enter your username and password for your Free or Paid Books Accounts:

Username: jdoe@abc123.com
Password:
□ Remember me on this computer. Forgot?
Create an Account

? Cancel Continue

✓ Pre-Publish Check
✓ Sign In
○ Add Version Info
○ Create Sample Book
○ Export Book

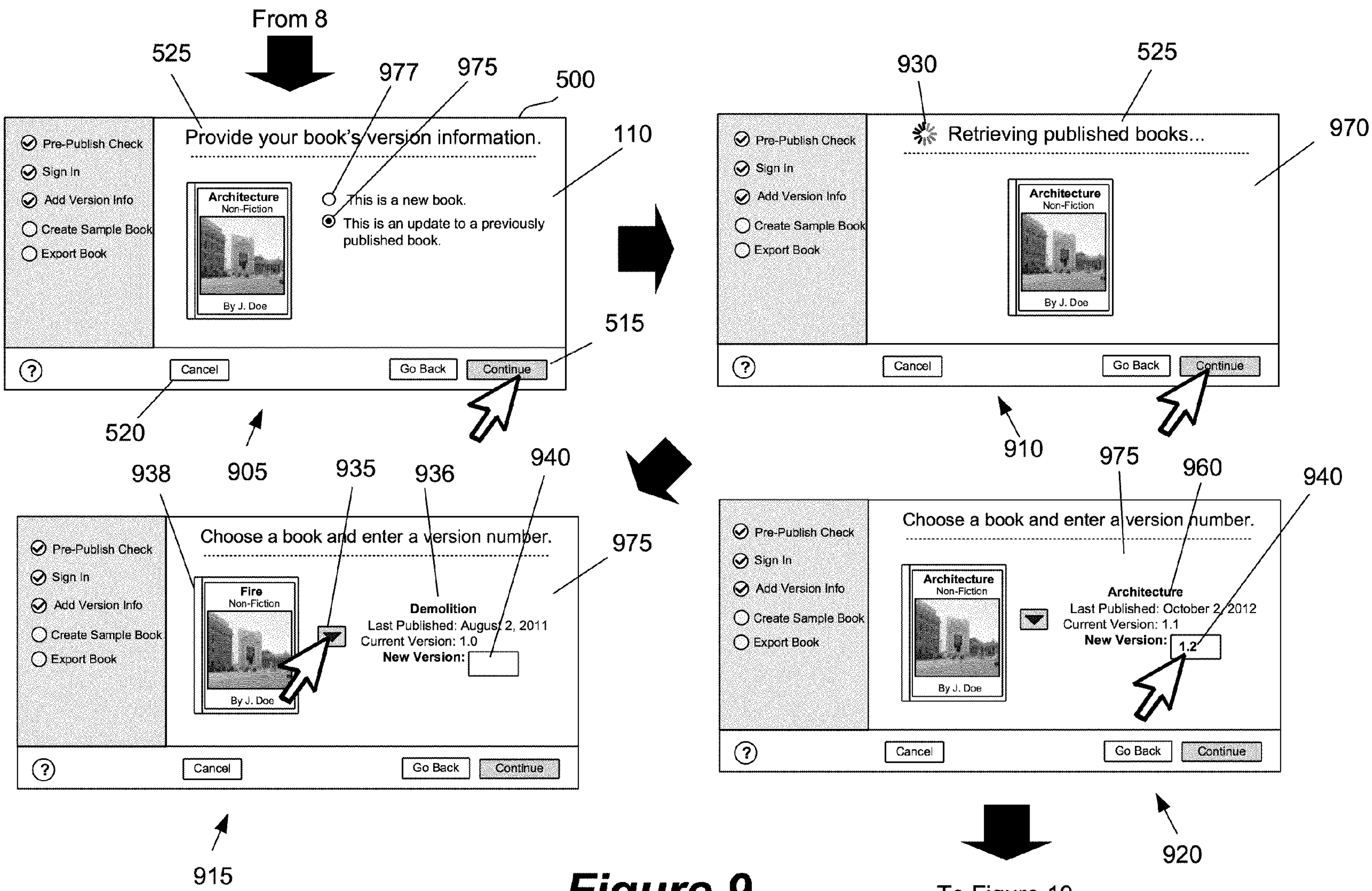
Sign in to Publisher Account

Enter your username and password for your Free or Paid Books Accounts:

Username: jdoe@abc123.com
Password: ●●●●●●
☑ Remember me on this computer. Forgot?
Signing in...

? Cancel Continue

Figure 8



Provide your book's version information.

○ This is a new book.

● This is an update to a previously published book.

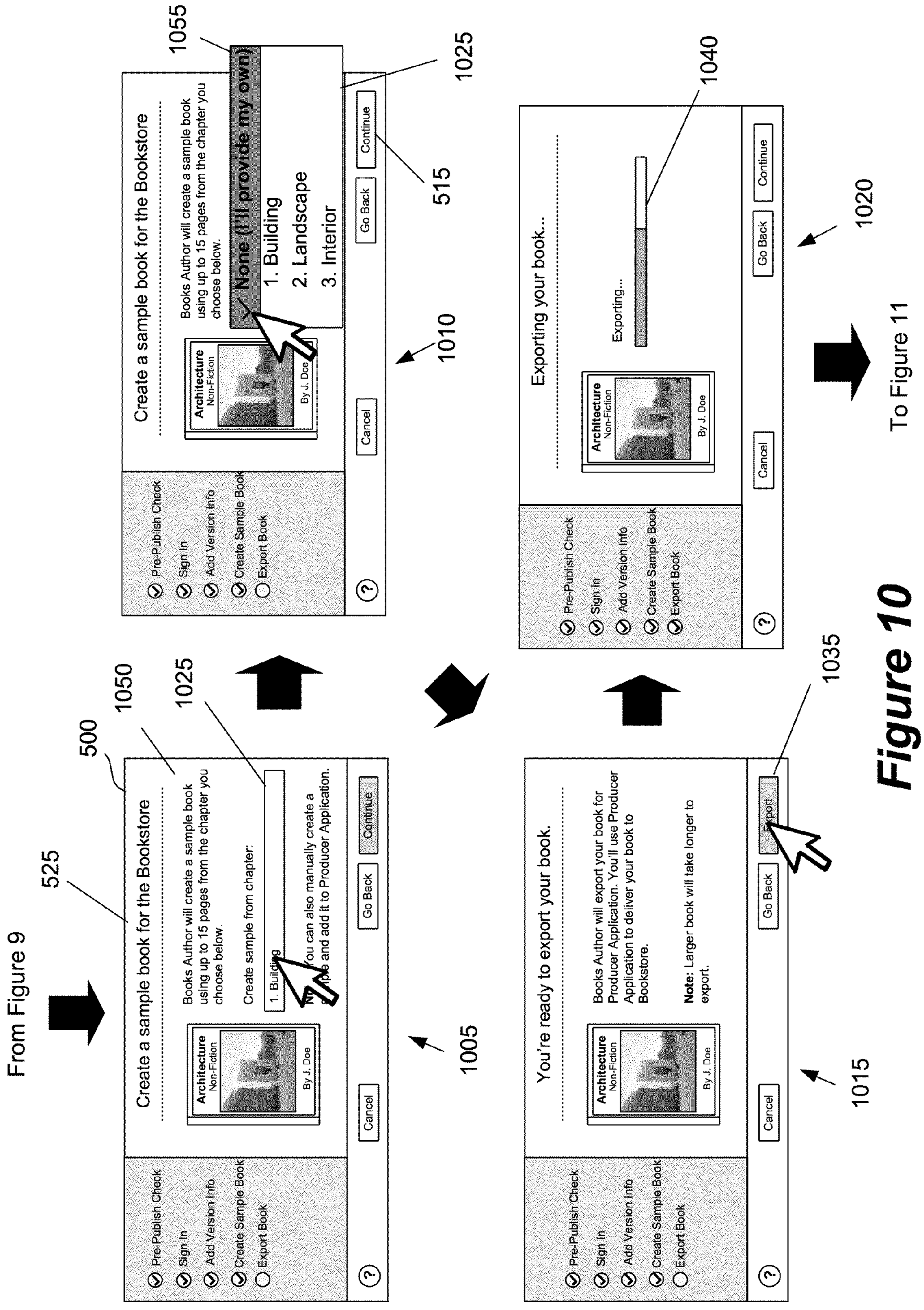
Retrieving published books...

Choose a book and enter a version number.

Demolition
Last Published: August 2, 2011
Current Version: 1.0
New Version:

Architecture
Last Published: October 2, 2012
Current Version: 1.1
New Version: 1.2

Figure 9



Create a sample book for the Bookstore

Books Author will create a sample book using up to 15 pages from the chapter you choose below.

Create sample from chapter: 1. Building

Note: You can also manually create a sample and add it to Producer Application.

You're ready to export your book.

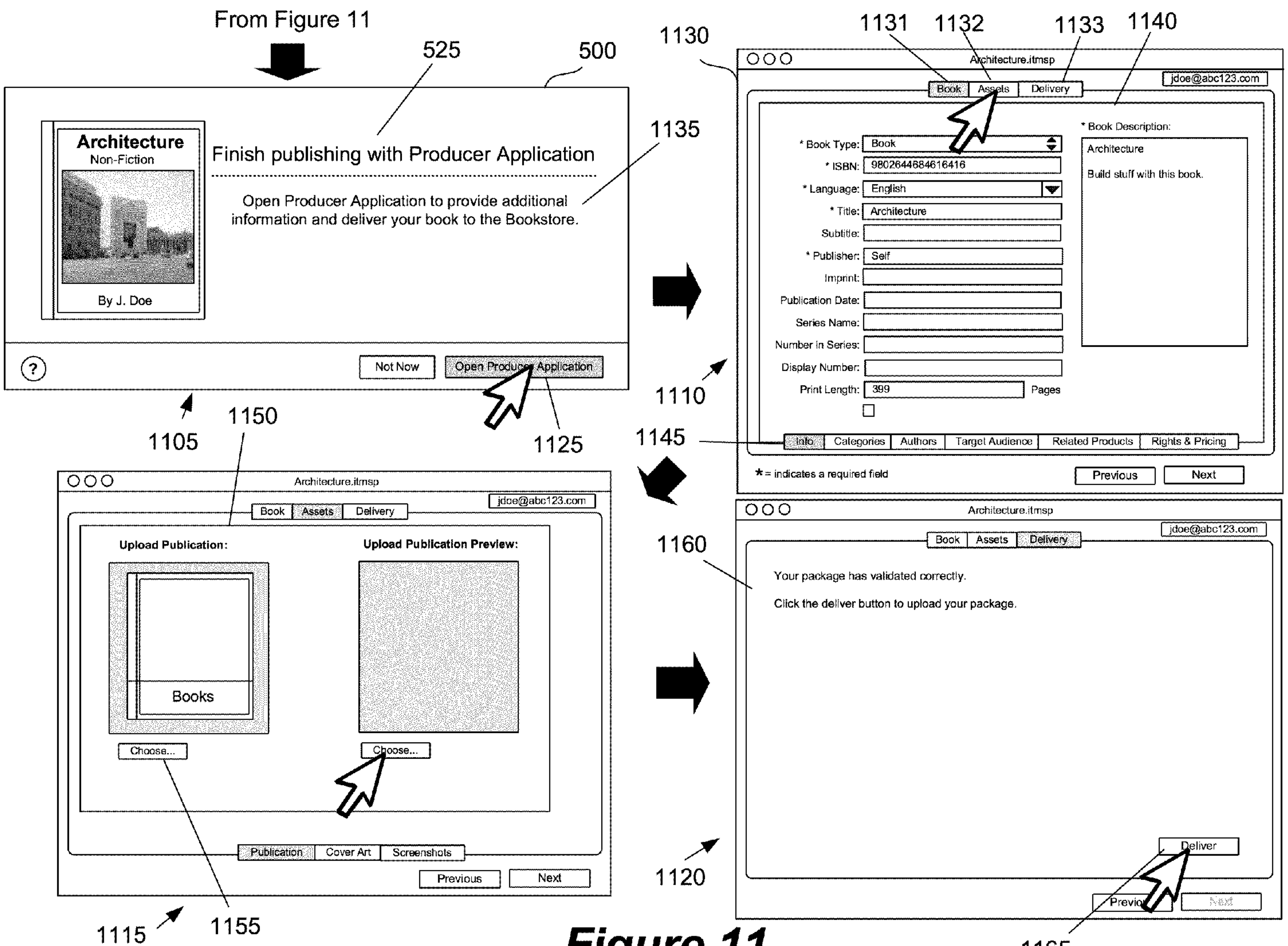
Books Author will export your book for Producer Application. You'll use Producer Application to deliver your book to Bookstore.

Note: Larger book will take longer to export.

Exporting your book...

Exporting...

Figure 10



Finish publishing with Producer Application

Open Producer Application to provide additional information and deliver your book to the Bookstore.

* Book Type: Book
* ISBN: 9802644684616416
* Language: English
* Title: Architecture
Subtitle:
* Publisher: Self
Imprint:
Publication Date:
Series Name:
Number in Series:
Display Number:
Print Length: 399 Pages

* Book Description: Architecture

Build stuff with this book.

* = indicates a required field

Upload Publication:

Upload Publication Preview:

Your package has validated correctly.

Click the deliver button to upload your package.

Figure 11

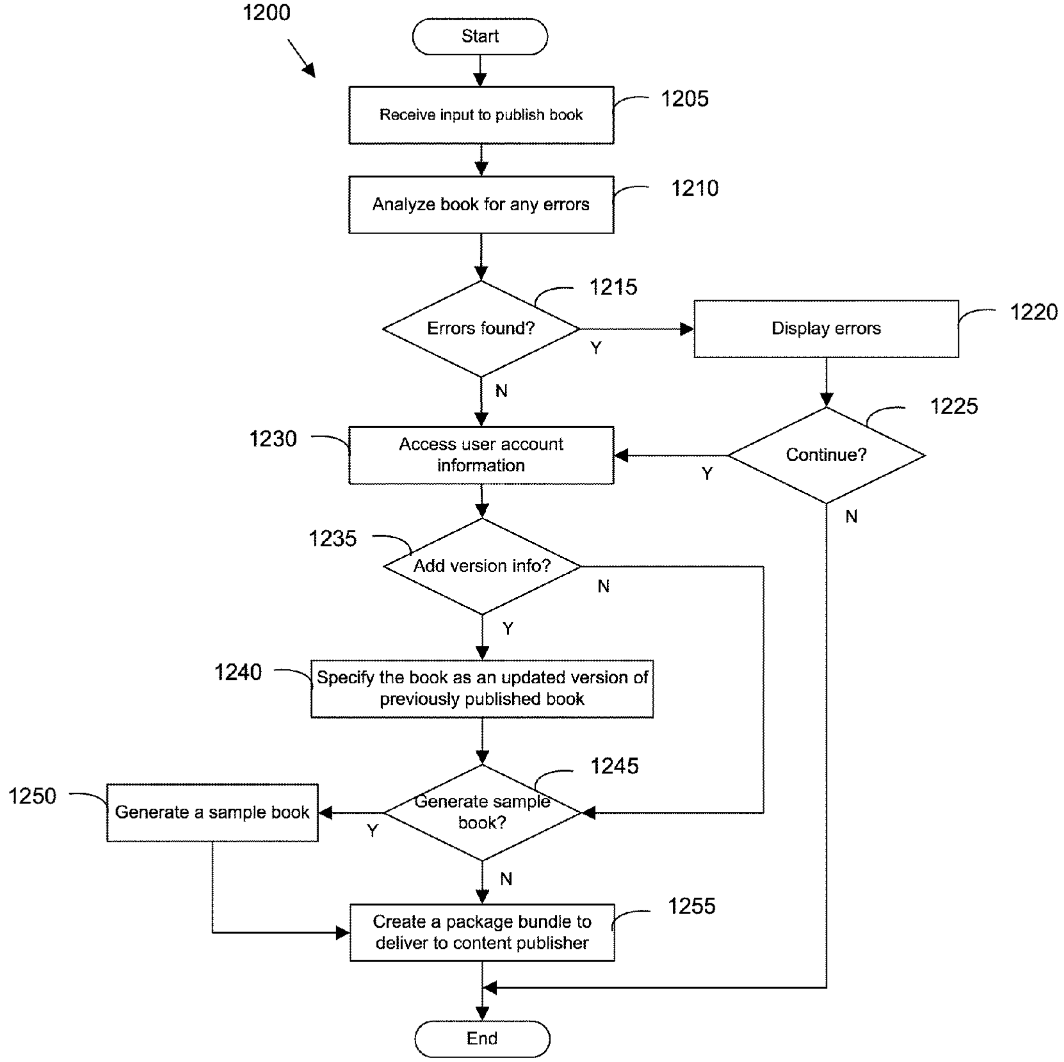

1200
Start
Receive input to publish book
1205
Analyze book for any errors
1210
Errors found?
1215
Y
Display errors
1220
N
Continue?
1225
1230
Access user account information
Y
N
1235
Add version info?
N
Y
1240
Specify the book as an updated version of previously published book
1245
1250
Generate a sample book
Y
Generate sample book?
N
Create a package bundle to deliver to content publisher
1255
End

Figure 12

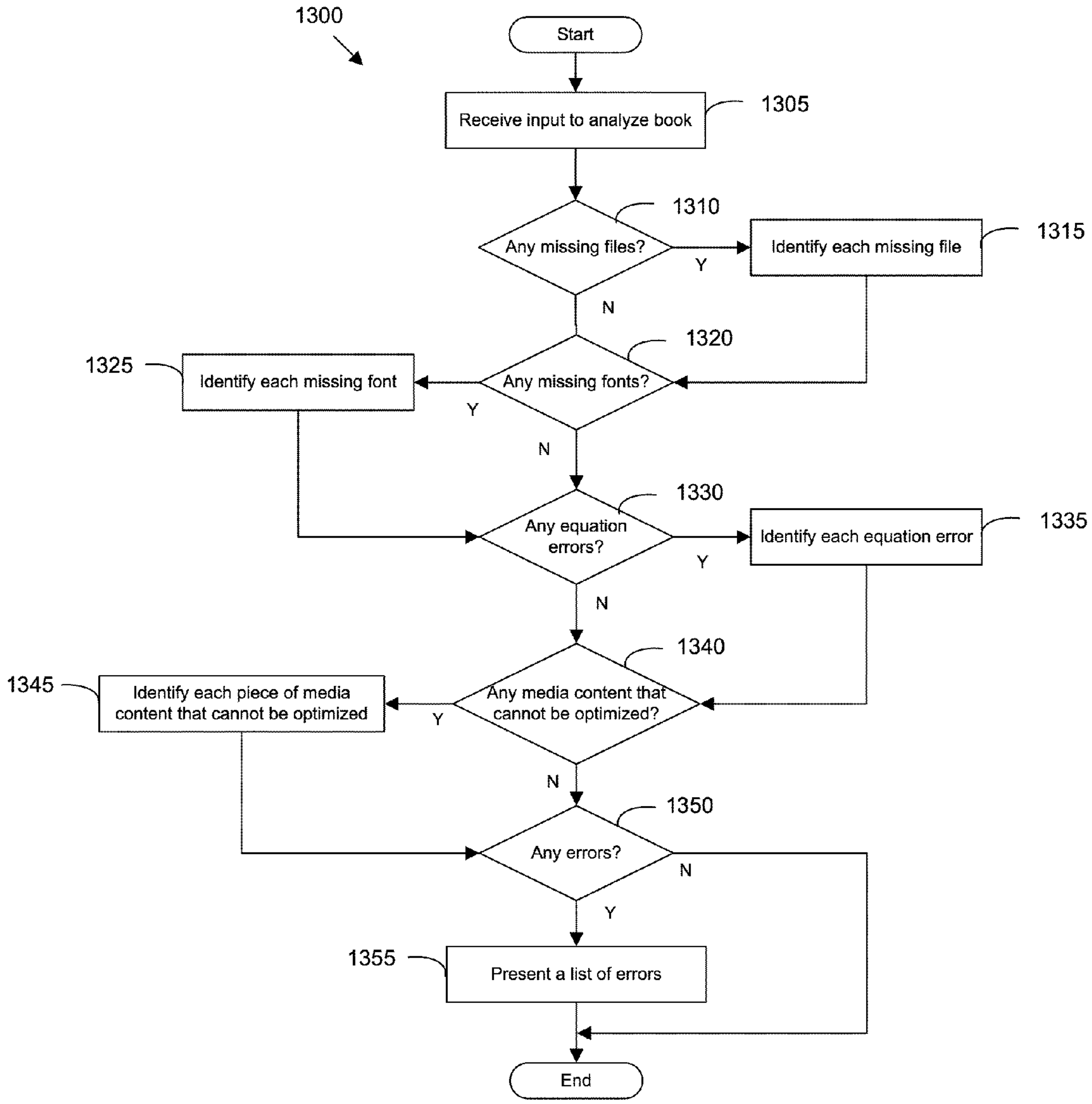

1300
Start
Receive input to analyze book
1305
Any missing files?
1310
Y
Identify each missing file
1315
N
Any missing fonts?
1320
Y
Identify each missing font
1325
N
Any equation errors?
1330
Y
Identify each equation error
1335
N
Any media content that cannot be optimized?
1340
Y
Identify each piece of media content that cannot be optimized
1345
N
Any errors?
1350
N
Y
Present a list of errors
1355
End

Figure 13

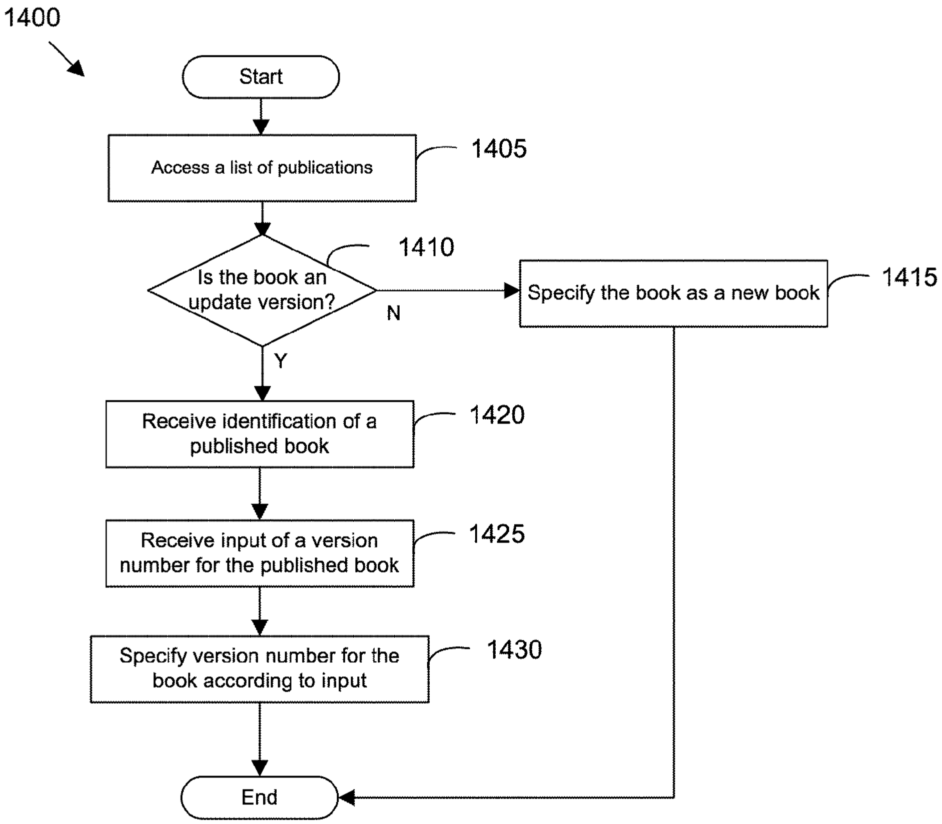

1400
Start
Access a list of publications
1405
Is the book an update version?
1410
N
Specify the book as a new book
1415
Y
Receive identification of a published book
1420
Receive input of a version number for the published book
1425
Specify version number for the book according to input
1430
End

Figure 14

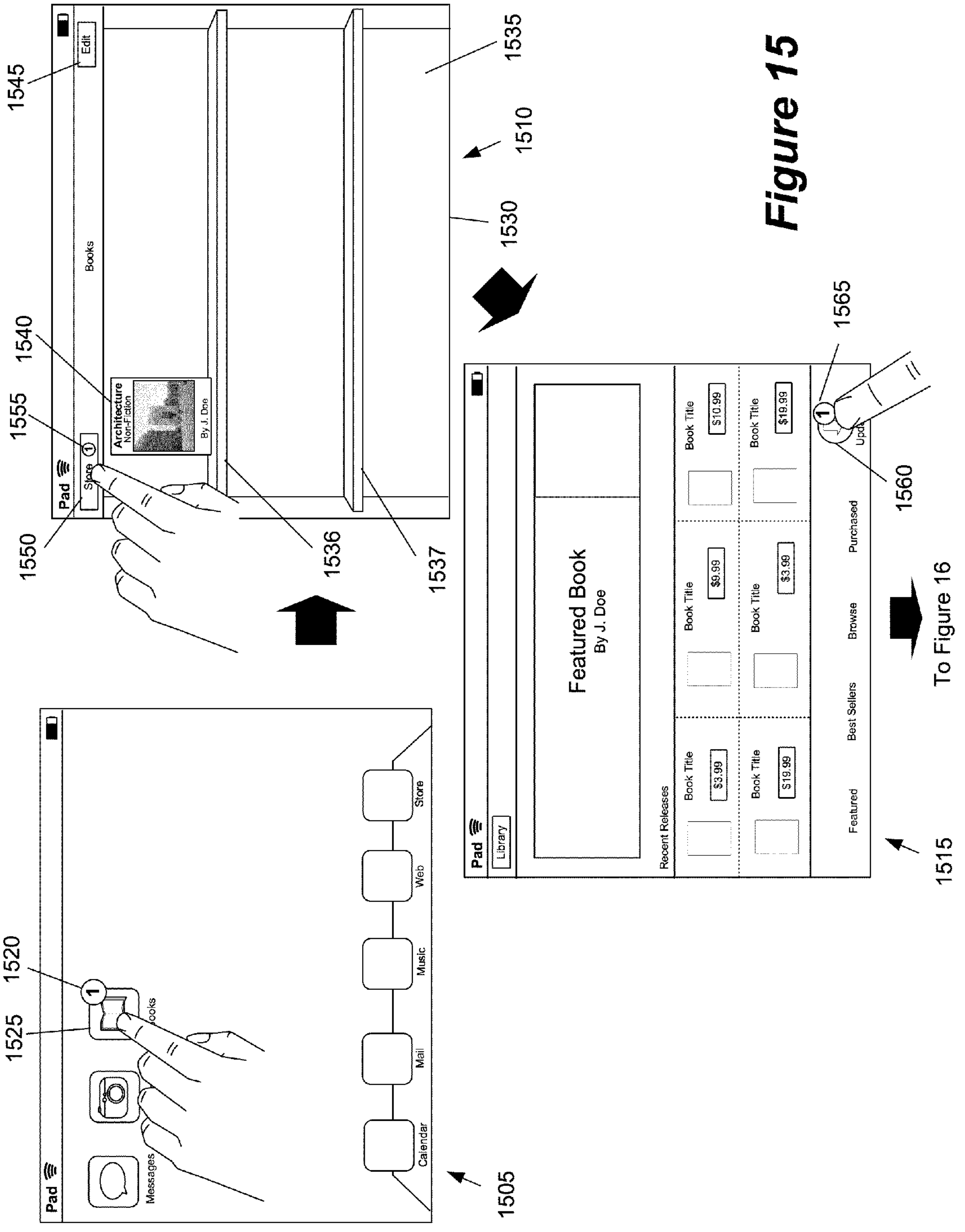

1505
Pad
Messages
Books
Calendar
Mail
Music
Web
Store
1
1520
1525
1510
Pad
Store
1
Books
Edit
Architecture
Non-Fiction
By J. Doe
1530
1535
1536
1537
1540
1545
1550
1555
1515
Pad
Library
Featured Book
By J. Doe
Recent Releases
Book Title
$3.99
Book Title
$9.99
Book Title
$10.99
Book Title
$19.99
Book Title
$3.99
Book Title
$19.99
Featured
Best Sellers
Browse
Purchased
Upd
1
1560
1565
To Figure 16

Figure 15

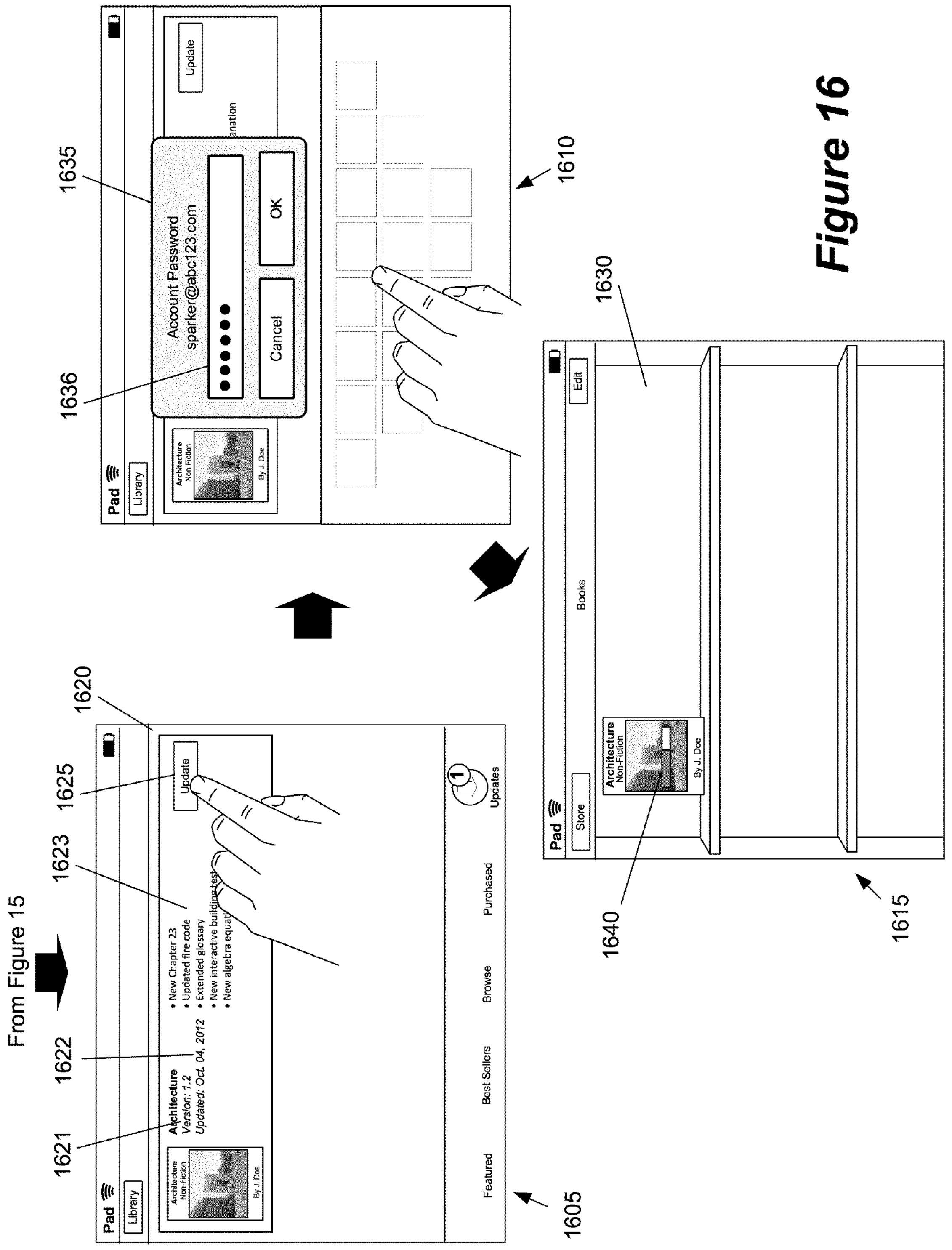

From Figure 15
1605
1620
1621
1622
1623
1625
Pad
Library
Architecture
Non-Fiction
By J. Doe
Architecture
Version: 1.2
Updated: Oct. 04, 2012
• New Chapter 23
• Updated fire code
• Extended glossary
• New interactive building test
• New algebra equati
Update
Featured
Best Sellers
Browse
Purchased
1
Updates
1610
1635
1636
Account Password
sparker@abc123.com
●●●●●
Cancel
OK
anation
1615
1630
1640
Store
Books
Edit
By J. Doe

Figure 16

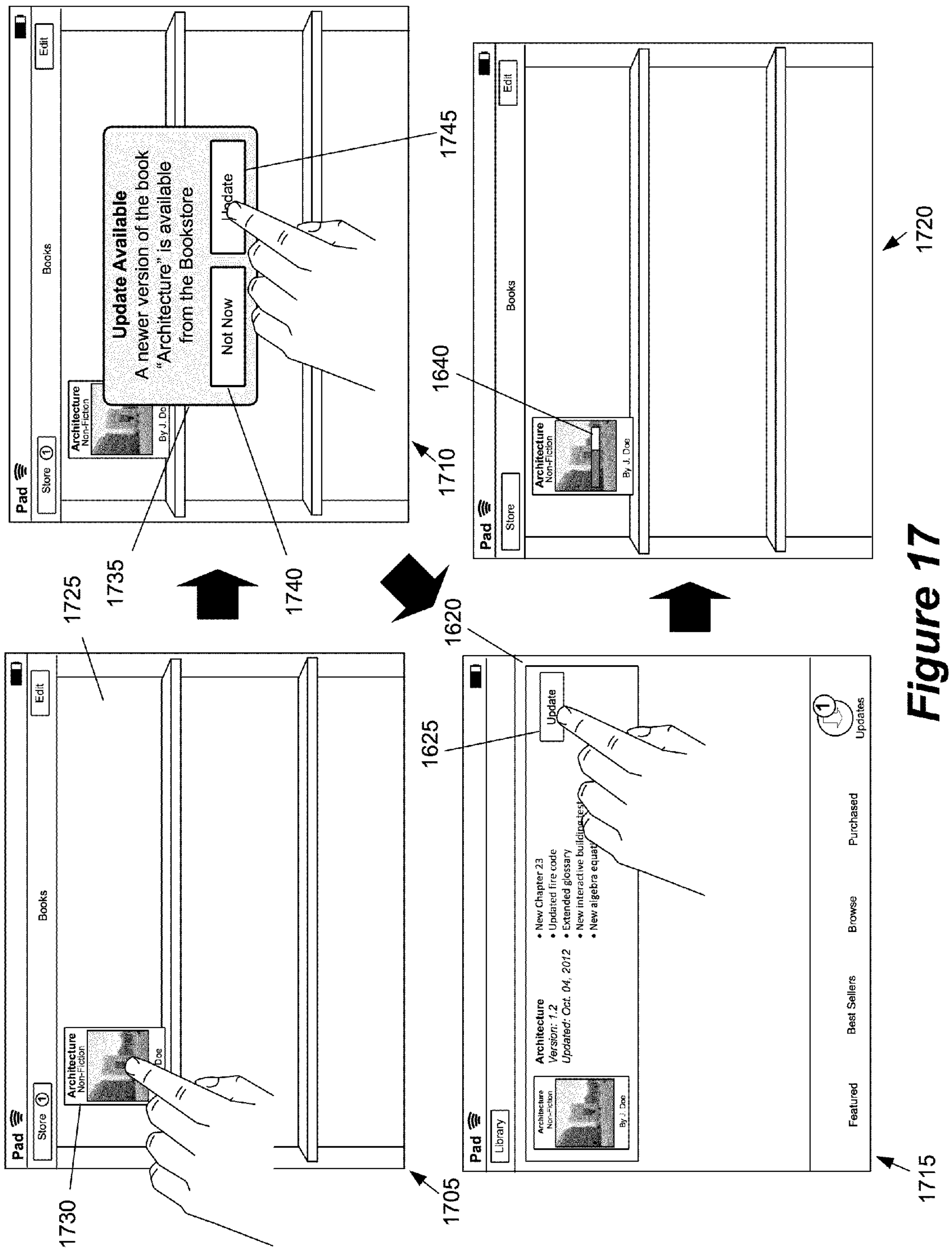

1705
1730
Pad
Store 1
Books
Edit
Architecture
Non-Fiction
By J. Doe
1725
1735
1740
1710
1745
Update Available
A newer version of the book "Architecture" is available from the Bookstore
Not Now
Update
1620
1625
1715
Library
Architecture
Version: 1.2
Updated: Oct. 04, 2012
• New Chapter 23
• Updated fire code
• Extended glossary
• New interactive building test
• New algebra equat
Featured
Best Sellers
Browse
Purchased
Updates
1
1640
1720

Figure 17

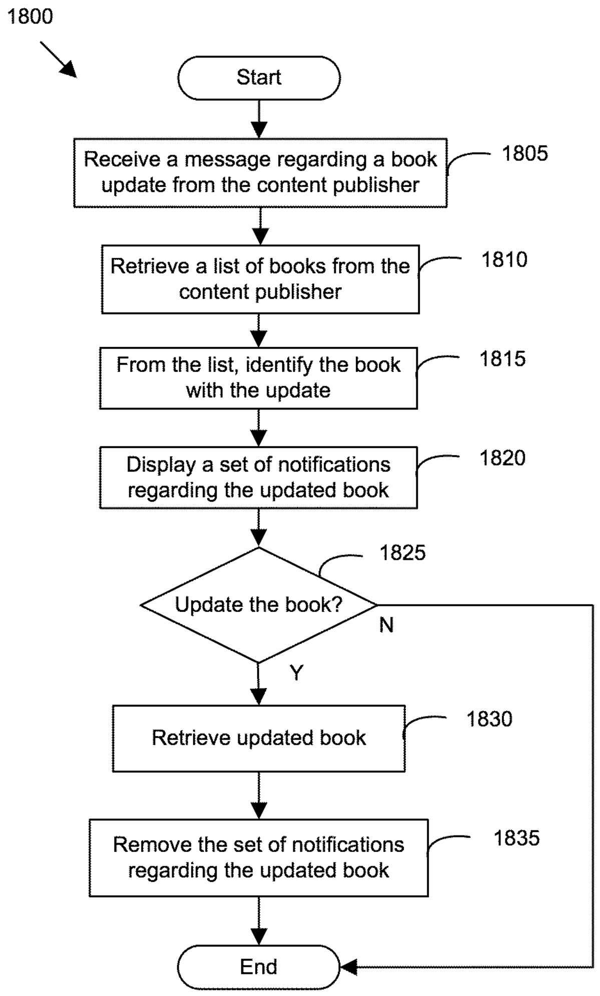

1800
Start
Receive a message regarding a book update from the content publisher
1805
Retrieve a list of books from the content publisher
1810
From the list, identify the book with the update
1815
Display a set of notifications regarding the updated book
1820
1825
Update the book?
N
Y
Retrieve updated book
1830
Remove the set of notifications regarding the updated book
1835
End

Figure 18

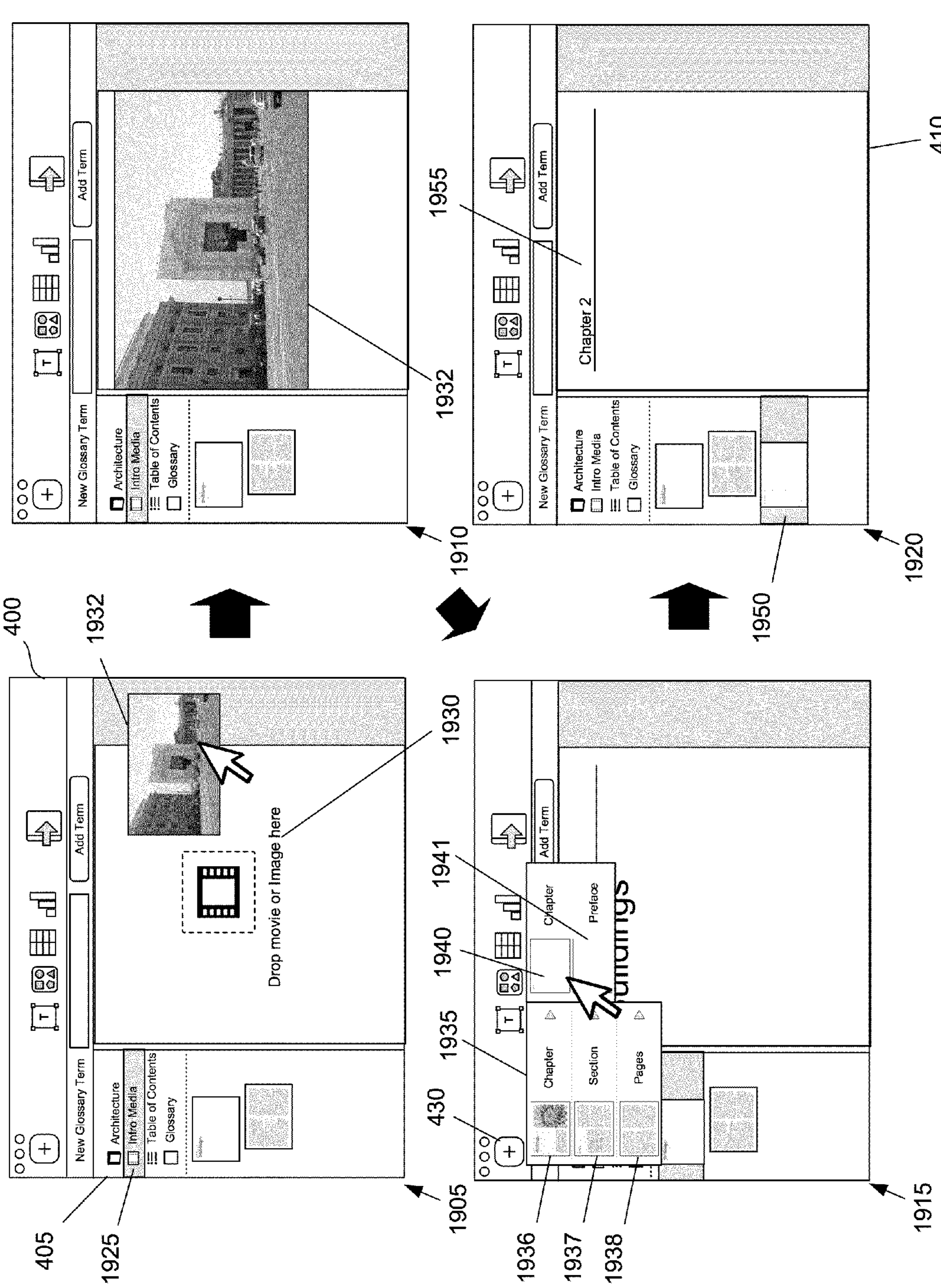

400
405
1925
1905
New Glossary Term
Architecture
Intro Media
Table of Contents
Glossary
Add Term
Drop movie or Image here
1930
1932
1910
1955
Chapter 2
410
1920
1950
430
1935
Chapter
Section
Pages
1936
1937
1938
1940
1941
Chapter
Preface
1915

Figure 19

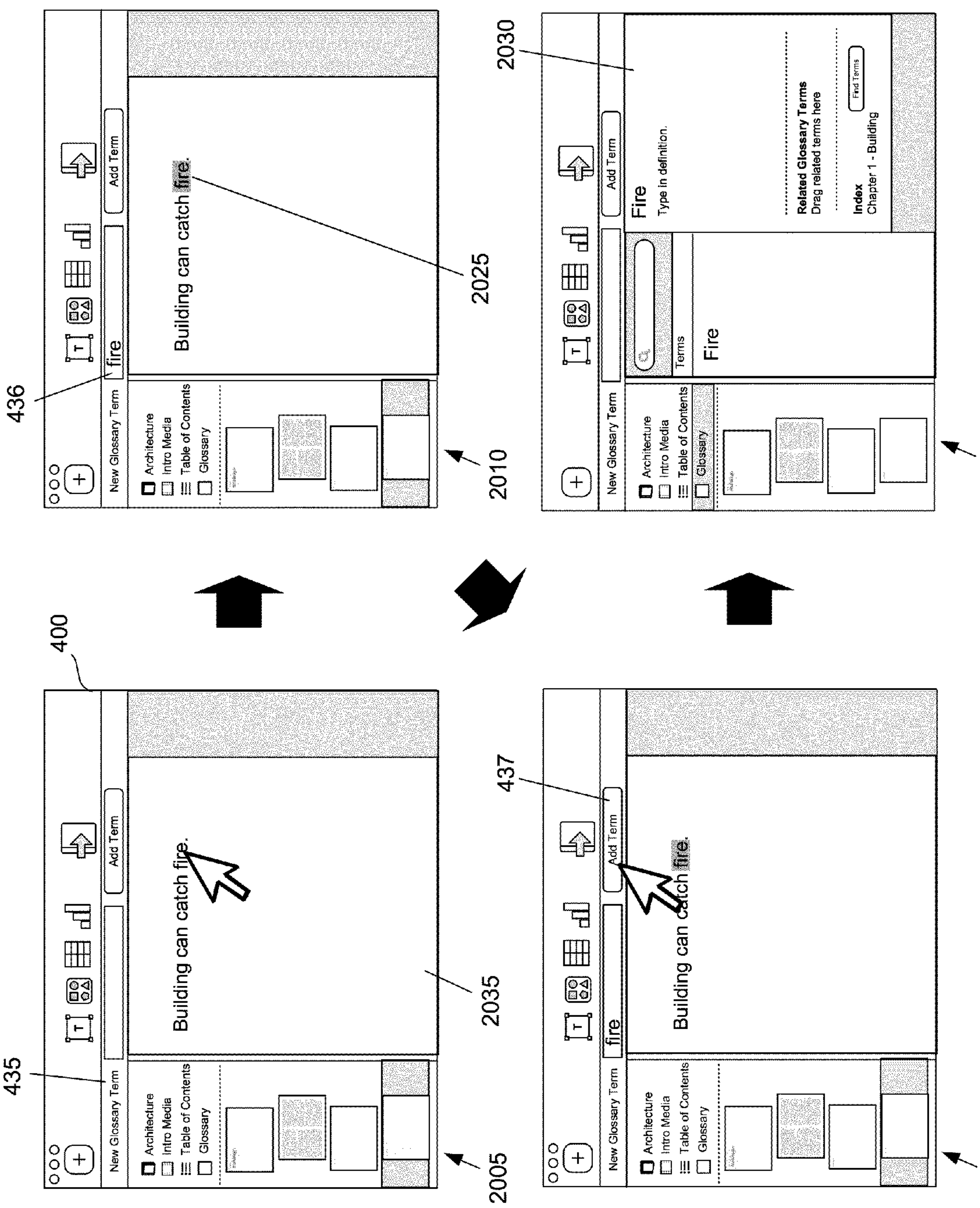
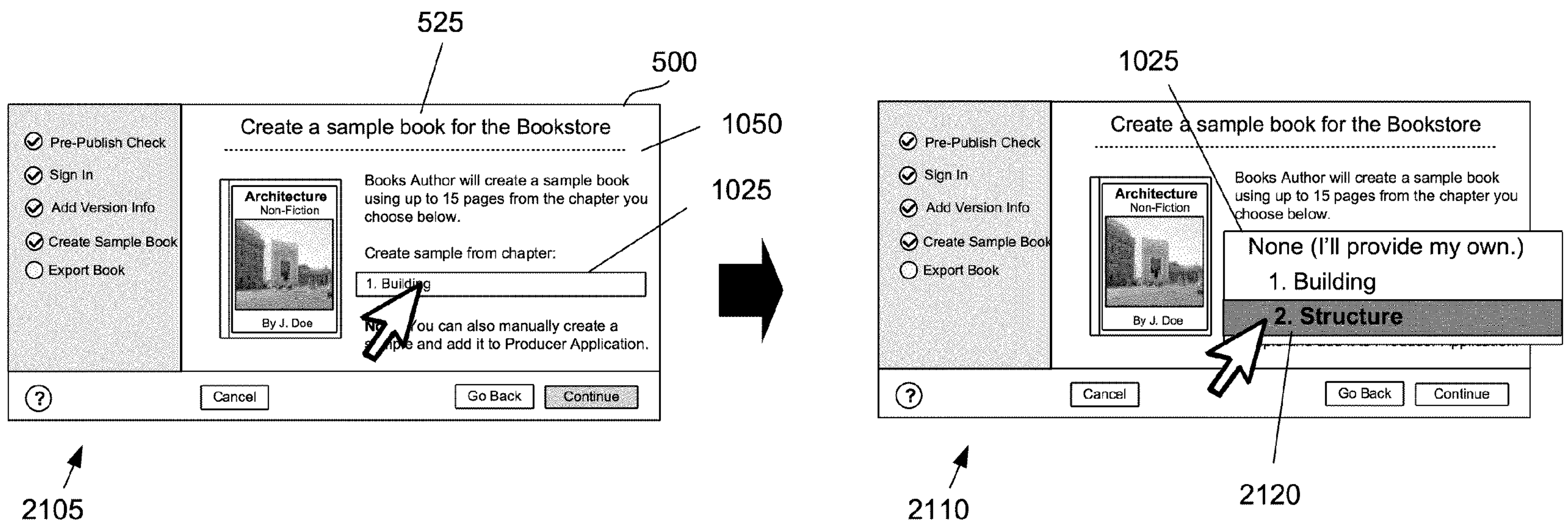

400
435
436
437
2005
2010
2015
2020
2025
2030
2035
New Glossary Term
Architecture
Intro Media
Table of Contents
Glossary
Add Term
fire
Building can catch fire.
Terms
Fire
Type in definition.
Related Glossary Terms
Drag related terms here
Find Terms
Index
Chapter 1 - Building

Figure 20



Create a sample book for the Bookstore

Books Author will create a sample book using up to 15 pages from the chapter you choose below.

Create sample from chapter: 1. Building

Note: You can also manually create a sample and add it to Producer Application.

Create a sample book for the Bookstore

Books Author will create a sample book using up to 15 pages from the chapter you choose below.

Figure 21

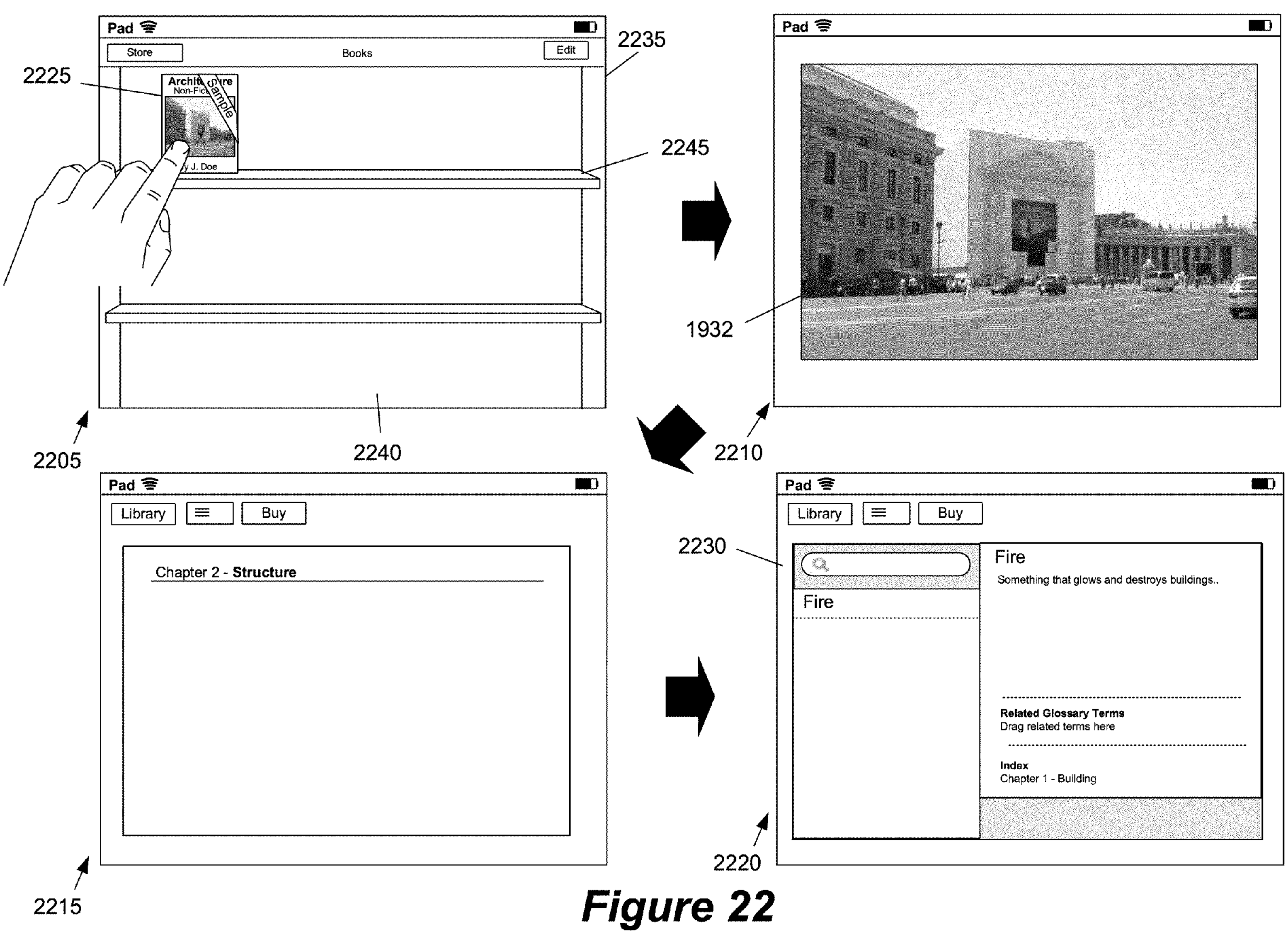

Pad
Store
Books
Edit
Archit ure
Non-Fic
Sample
J. Doe
2225
2235
2245
2240
2205
Pad
1932
2210
Pad
Library
☰
Buy
Chapter 2 - Structure
2215
Pad
Library
☰
Buy
2230
Fire
Fire
Something that glows and destroys buildings..
Related Glossary Terms
Drag related terms here
Index
Chapter 1 - Building
2220

Figure 22

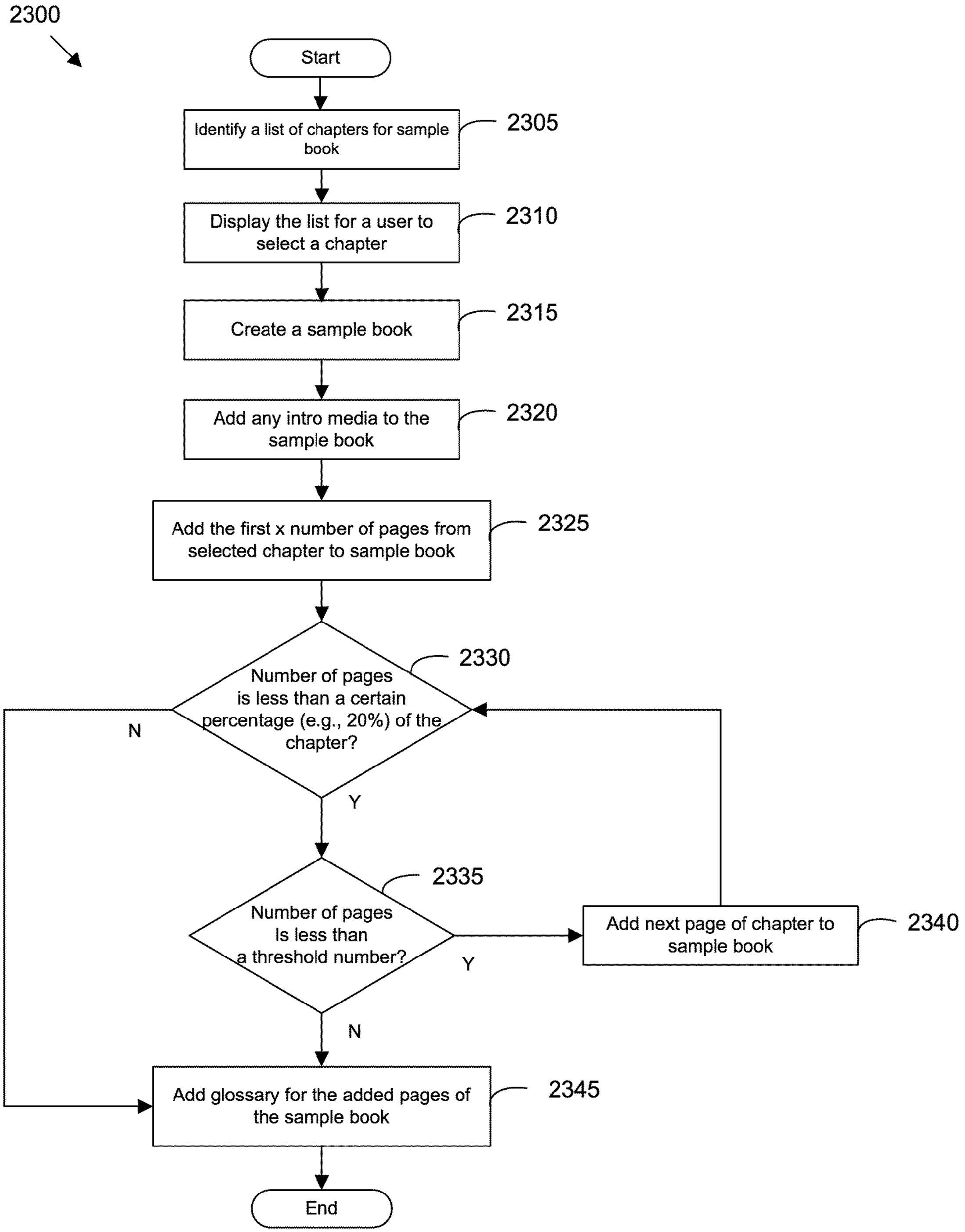

2300
Start
Identify a list of chapters for sample book
2305
Display the list for a user to select a chapter
2310
Create a sample book
2315
Add any intro media to the sample book
2320
Add the first x number of pages from selected chapter to sample book
2325
Number of pages is less than a certain percentage (e.g., 20%) of the chapter?
2330
N
Y
Number of pages Is less than a threshold number?
2335
Y
Add next page of chapter to sample book
2340
N
Add glossary for the added pages of the sample book
2345
End

Figure 23

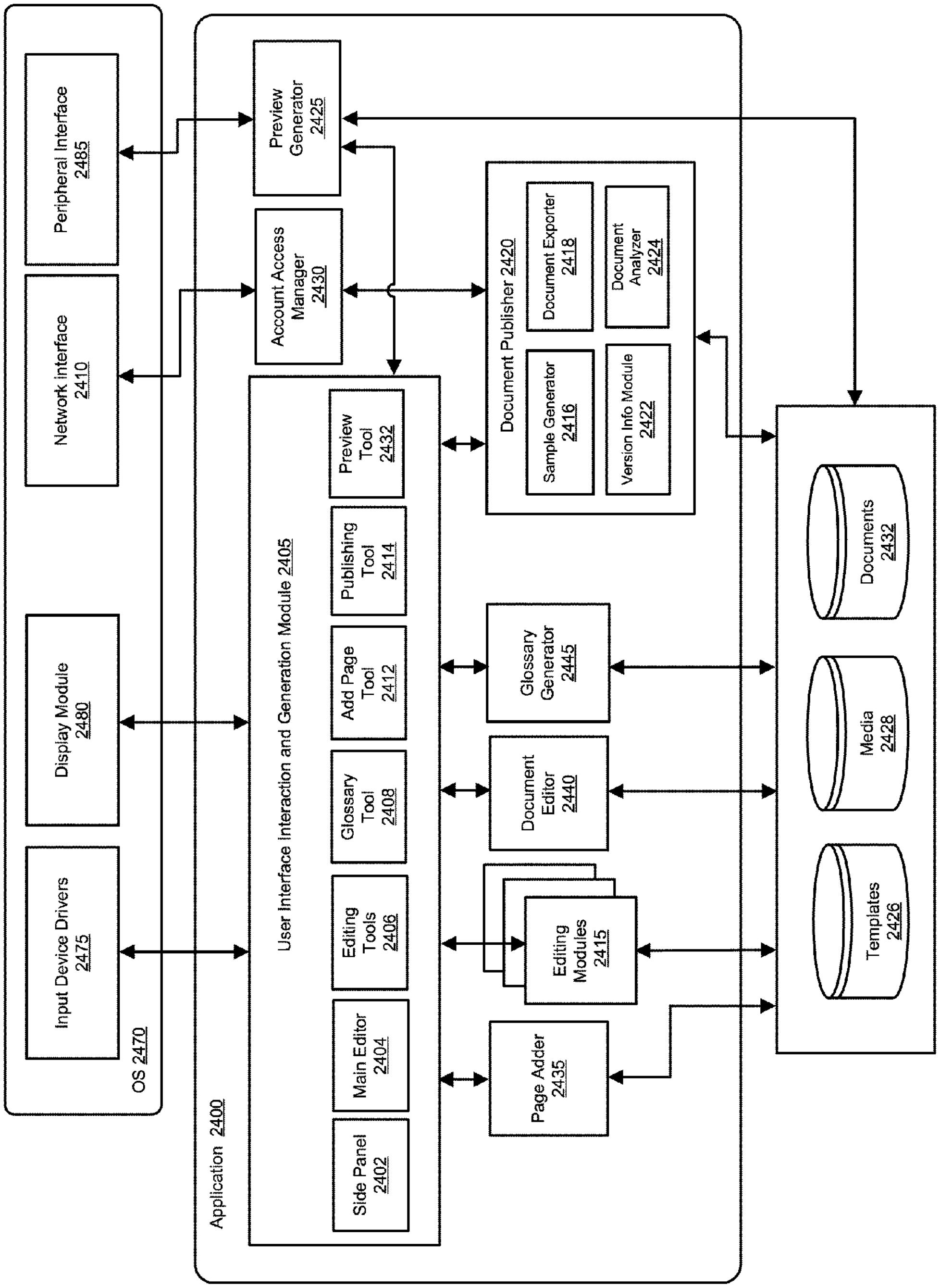

OS 2470
Input Device Drivers 2475
Display Module 2480
Network interface 2410
Peripheral Interface 2485
Application 2400
User Interface Interaction and Generation Module 2405
Side Panel 2402
Main Editor 2404
Editing Tools 2406
Glossary Tool 2408
Add Page Tool 2412
Publishing Tool 2414
Preview Tool 2432
Account Access Manager 2430
Preview Generator 2425
Document Publisher 2420
Sample Generator 2416
Document Exporter 2418
Version Info Module 2422
Document Analyzer 2424
Page Adder 2435
Editing Modules 2415
Document Editor 2440
Glossary Generator 2445
Templates 2426
Media 2428
Documents 2432

Figure 24

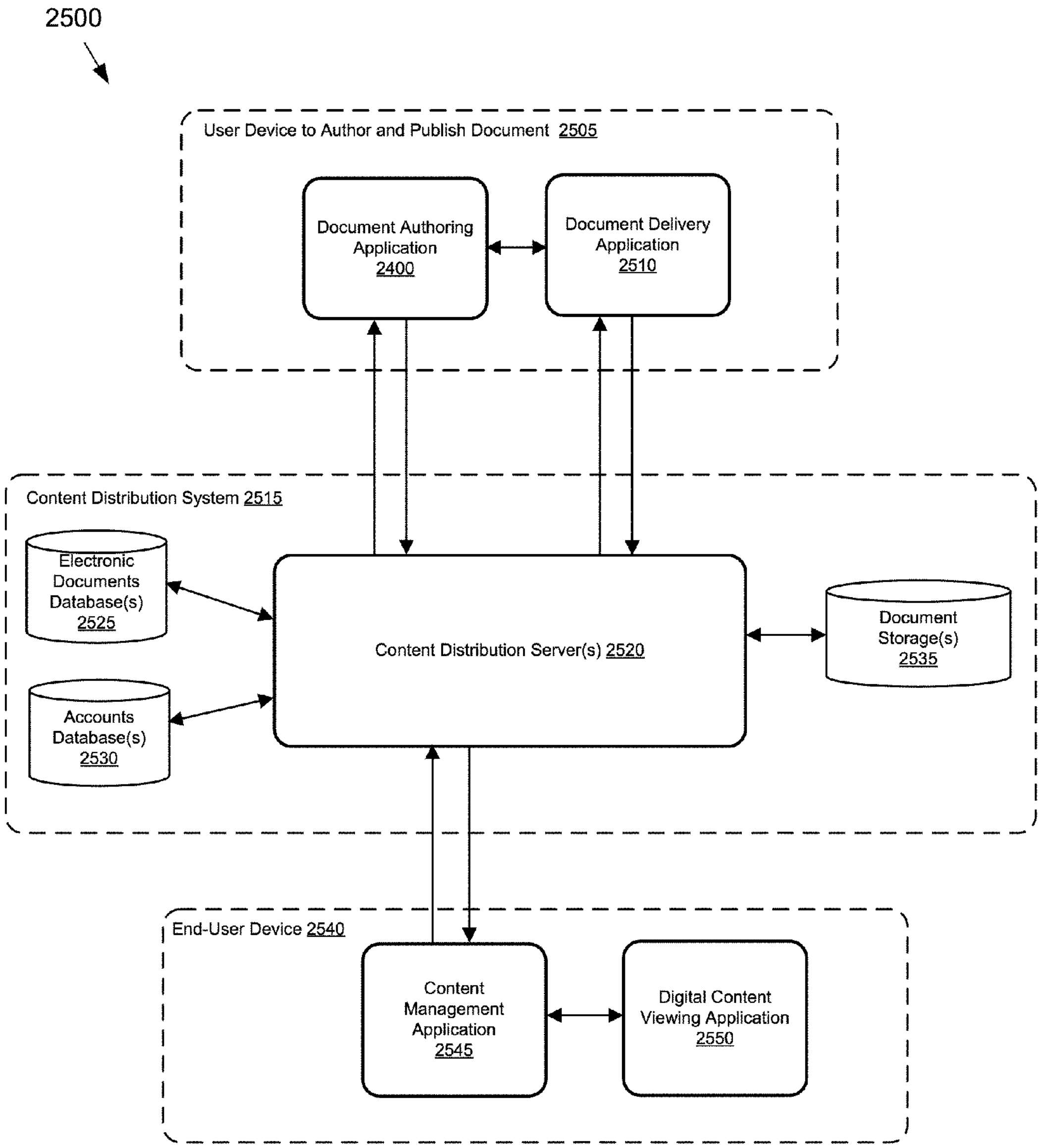

2500
User Device to Author and Publish Document 2505
Document Authoring Application 2400
Document Delivery Application 2510
Content Distribution System 2515
Electronic Documents Database(s) 2525
Accounts Database(s) 2530
Content Distribution Server(s) 2520
Document Storage(s) 2535
End-User Device 2540
Content Management Application 2545
Digital Content Viewing Application 2550

Figure 25

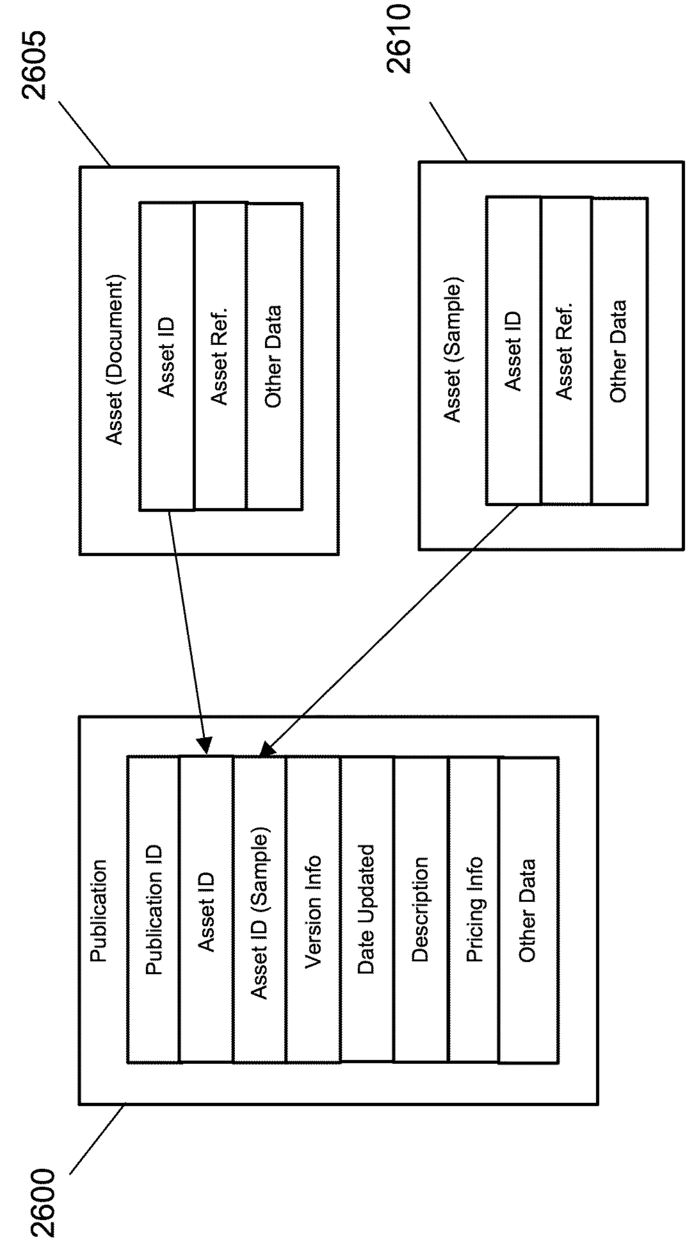

2605
Asset (Document)
Asset ID
Asset Ref.
Other Data
2610
Asset (Sample)
Asset ID
Asset Ref.
Other Data
Publication
Publication ID
Asset ID
Asset ID (Sample)
Version Info
Date Updated
Description
Pricing Info
Other Data
2600

Figure 26

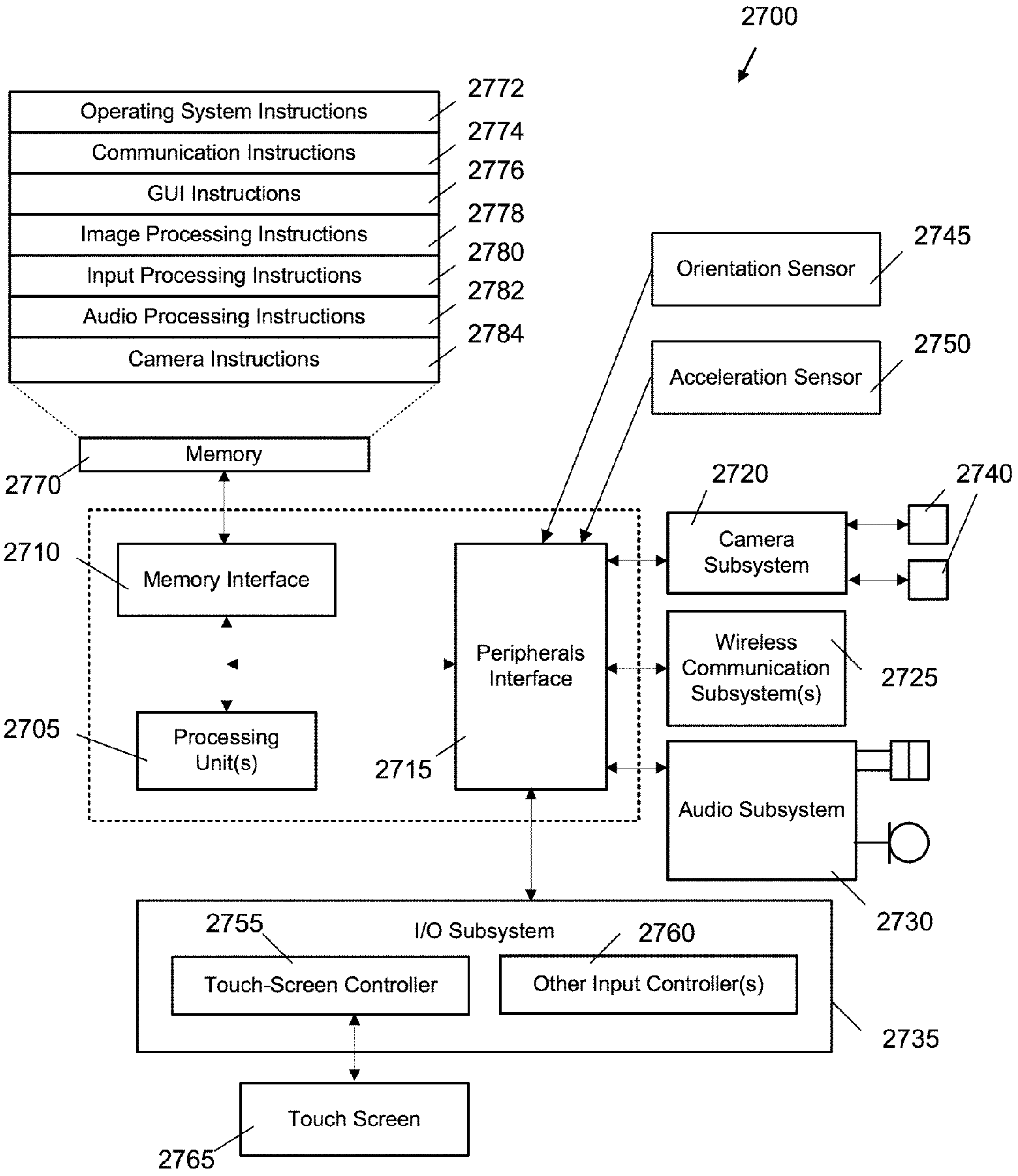

2700
Operating System Instructions
2772
Communication Instructions
2774
GUI Instructions
2776
Image Processing Instructions
2778
Input Processing Instructions
2780
Audio Processing Instructions
2782
Camera Instructions
2784
Memory
2770
Orientation Sensor
2745
Acceleration Sensor
2750
2720
2740
Camera Subsystem
2710
Memory Interface
Peripherals Interface
Wireless Communication Subsystem(s)
2725
2705
Processing Unit(s)
2715
Audio Subsystem
2730
2755
I/O Subsystem
2760
Touch-Screen Controller
Other Input Controller(s)
2735
Touch Screen
2765

Figure 27

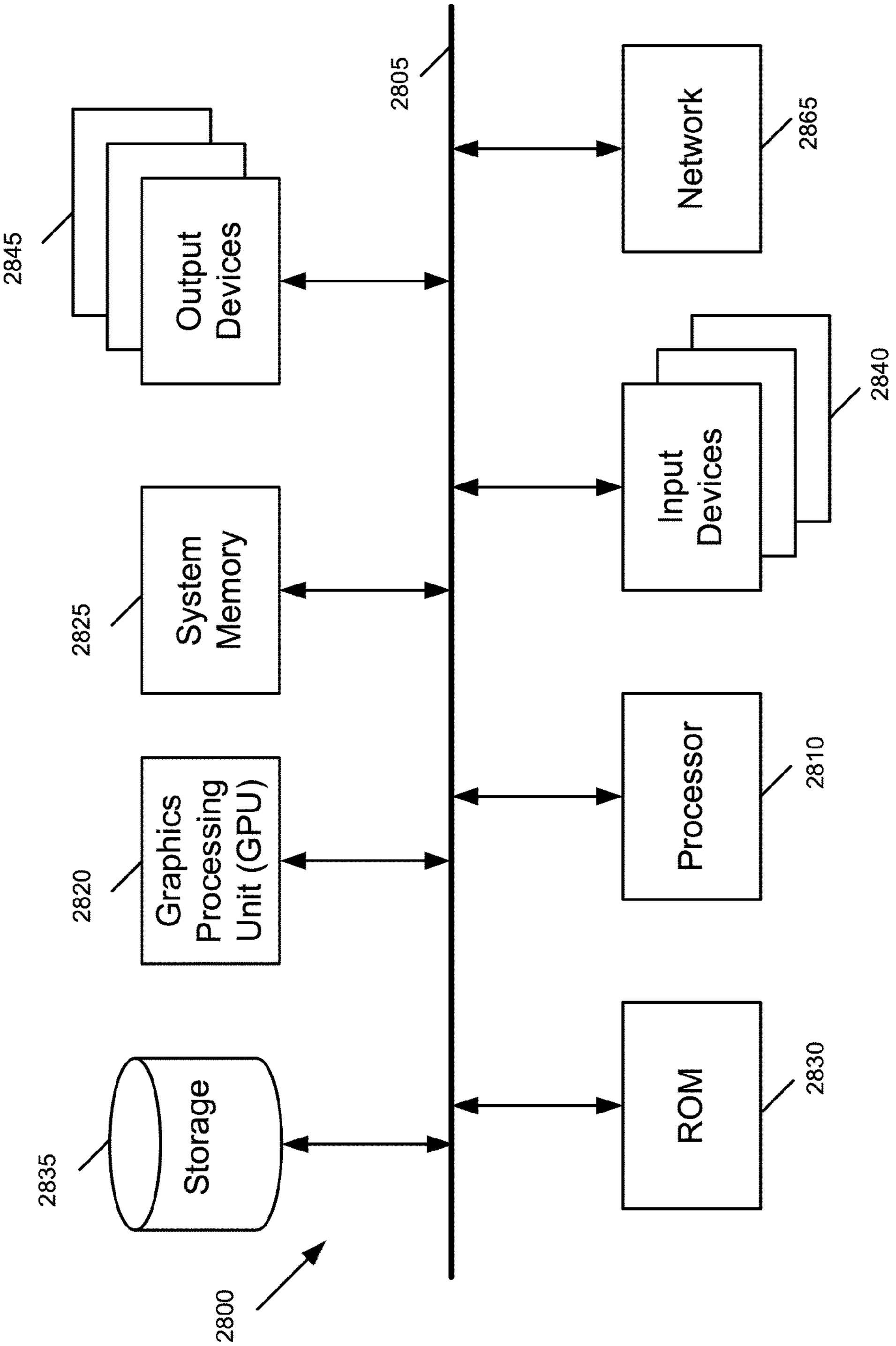

2800
2805
Storage
2835
Graphics Processing Unit (GPU)
2820
System Memory
2825
Output Devices
2845
ROM
2830
Processor
2810
Input Devices
2840
Network
2865

Figure 28

DOCUMENT PUBLISHING MODEL

BACKGROUND

Electronic books (ebooks) have become very popular in recent years. One reason for their popularity is that, unlike physical books, they are very portable. A person can import hundreds of ebooks into a portable computing device (e.g., smart phone, tablet), carry the device around, and view any one of the ebooks using the device. There are also many online bookstores from different content distributors, which make it easy for the person to obtain them. For instance, the person can browse a content publisher's online bookstore for a book, input payment information, and download the book.

Different from downloading, creating and publishing a book can be a daunting task. As an example, an author has to spend many hours just to write the book. If the author is a self-publisher, then the author has to research how to publish the book with a content publisher. After researching, the author has to format the book following the content publisher's guidelines using one or more applications, create supplemental items (e.g., cover page, sample book), open a publishing account, and then hope he or she did not miss a step. While not as difficult as writing a good book, publishing a book can take a lot of time and effort.

BRIEF SUMMARY

Some embodiments described herein provide a novel content authoring application for publishing electronic documents (e.g., ebooks, electronic magazines, electronic newspapers) to a content distribution system. The content authoring application of some embodiments includes a publishing tool. The publishing tool implements a publishing model that guides a user through different operations in preparing a document for publication. In some embodiments, these operations include performing a pre-publish check of the document and exporting the document for publication. The document may be exported in a particular format specified by the content distribution system. In some embodiments, the content authoring application exports the document with other supplemental items that the content distribution system uses to publish the document (e.g., cover art, document metadata, etc.).

The pre-publish check of some embodiments entails analyzing a document to identify errors that prevents the document from being published with the content distribution system. For instance, the document may be associated with a media item that cannot be optimized, an object that has an invalid format, etc. In some embodiments, the application analyzes the document for other errors that prevent the document from being published properly, such as missing fonts, missing images, etc. By performing the pre-publish check, a self-publishing author does not have to research different guidelines in publishing his or her work to the content distribution system. In other words, the author can concentrate more on writing the document rather than expending valuable time researching how to publish the document and preparing the document for publication.

In conjunction with the publishing tool or instead of it, the content authoring application in some embodiments provides a document-sampling tool. This tool allows a user to identify a section of a document (e.g., a chapter of a book) and generate a sample document that includes a selection of pages from that section. Different heuristics can be used to generate the sample document using the pages from the section. For example, the sample document may be generated using a

predefined percentage (e.g., 20%) of the pages of the section up to a maximum of a predefined number of pages (e.g., 20 pages). The heuristics of the sample generation may also specify that the sample document include a minimum of some number of pages (e.g., three pages).

The content authoring application of some embodiments provides a versioning tool for specifying whether a document is a new document or an updated version of a document that has been published with the content distribution system. The tool includes a field to input version information (e.g., version number, issue number, edition information). The versioning tool of some embodiments presents a list of published documents. The user can then choose, from the list, a published document that is being updated. The content authoring application may access a publishing account associated with the user to display the list of published documents.

In some embodiments, the versioning tool and the sampling tool are provided as parts of the publication tool. That is, the publication tool of some embodiments not only guides a user through the pre-publish check and export operations, but also guides the user through specifying version information for a document and creating a sample document.

In addition to the content authoring application, some embodiments described herein provides a novel content viewing application. The content viewing application can be used to purchase and download a version of a document. When the document is updated to a newer version, the content viewing application in some embodiments presents one or more notifications regarding the update. For instance, the application might mark the application's icon and/or a menu item with a marking that provides a visual indication of the update. The document can then be updated to the new version using the application. Accordingly, the documents are no longer static items, but change (e.g., evolve) over time. In some embodiment, the new version of a document replaces the old version of the same document. However, the content viewing application might retain the old version or provide an option to retain it, so that the application's user can choose which version to view.

Several more detailed embodiments of the invention are provided below. Many of these examples refer to controls (e.g., selectable items) that are part of an image editing application. This application in some embodiments is a standalone application that executes on top of the operating system of a device, while in other embodiments it is part of the operating system. Also, in many of the examples below (such as those illustrated in FIGS. **1-11**, **15-17**, and **19-22**), the device on which the application executes has a touch screen through which a user can interact with the image editing application. However, one of ordinary skill in the art will realize that cursor controllers or other input devices can be used to interact with the controls and applications shown in these examples for other embodiments that execute on devices with cursors and cursor controllers or other input mechanisms (e.g., voice control).

The preceding Summary is intended to serve as a brief introduction to some embodiments as described herein. It is not meant to be an introduction or overview of all subject matter disclosed in this document. The Detailed Description that follows and the Drawings that are referred to in the Detailed Description will further describe the embodiments described in the Summary as well as other embodiments. Accordingly, to understand all the embodiments described by this document, a full review of the Summary, Detailed Description and the Drawings is needed. Moreover, the claimed subject matters are not to be limited by the illustrative details in the Summary, Detailed Description and the Drawings, but rather are to be defined by the appended claims, because the claimed subject matters can be embodied in other specific forms without departing from the spirit of the subject matters.

BRIEF DESCRIPTION OF THE DRAWINGS

The novel features as described here are set forth in the appended claims. However, for purposes of explanation, several embodiments are set forth in the following figures.

FIG. **1** illustrates a graphical user interface that includes a publishing tool for specifying version information relating to a document and creating a sample document.

FIG. **2** provides an illustrative example of creating a sample document for publication.

FIG. **3** provides an illustrative example of how a published document appears on a document store of a content distribution system.

FIG. **4** illustrates a GUI of a content authoring and publishing application.

FIG. **5** provides an illustrative example of opening a publishing tool.

FIG. **6** provides an illustrative example of how an application presents non-blocking errors.

FIG. **7** provides an illustrative example of how an application presents blocking errors.

FIG. **8** provides an illustrative example of signing in to a distribution account.

FIG. **9** provides an illustrative example of defining a document as an update to a previously published document.

FIG. **10** provides an illustrative example of selecting an option to manually create a sample document for publication.

FIG. **11** provides an illustrative example of how a content authoring application interfaces with a content delivery application to deliver the prepared document and its associated items to a content distribution system.

FIG. **12** conceptually illustrates a process performed by some embodiments to publish a document to a content distribution system.

FIG. **13** conceptually illustrates a process performed by some embodiments to analyze a document to identify errors.

FIG. **14** conceptually illustrates a process performed by some embodiments to specify a version number for a document.

FIG. **15** provides several example notifications that are shown on an end user's device when there is a new version of a published document.

FIG. **16** provides an illustrative example of updating a document to a new version.

FIG. **17** provides an illustrative example of displaying a notification upon selection of a document.

FIG. **18** conceptually illustrates a process performed by some embodiments to update a document on a device.

FIG. **19** provides an illustrative example of editing a document.

FIG. **20** provides an illustrative example of adding a term to a glossary of the document.

FIG. **21** provides an illustrative example of creating a sample document from a full-length document that a user has written with the application.

FIG. **22** provides an illustrative example of a sample document appearing on an end user's device.

FIG. **23** conceptually illustrates a process performed by some embodiments to create a sample document for a published document.

FIG. **24** conceptually illustrates the software architecture of a content authoring application of some embodiments.

FIG. **25** illustrates an example system architecture for distributing documents.

FIG. **26** conceptually illustrates several example data structures associated with a document publication.

FIG. **27** illustrates an example of an architecture of a mobile computing device.

FIG. **28** conceptually illustrates another example of an electronic system with which some embodiments of the invention are implemented.

DETAILED DESCRIPTION

In the following detailed description of the invention, numerous details, examples, and embodiments of the invention are set forth and described. However, it will be clear and apparent to one skilled in the art that the invention is not limited to the embodiments set forth and that the invention may be practiced without some of the specific details and examples discussed.

Some embodiments described herein provide a novel content publishing application for publishing documents to a content distribution system. The content publishing application in some embodiments includes a publishing tool that guides the application's user through different operations in preparing a document for publication. In some embodiments, these operations include one or more of the following: (1) analyzing the document for errors, (2) specifying a version number for the document, (3) creating a sample document, and (4) exporting the document for publication.

For some embodiments, FIG. **1** illustrates a graphical user interface ("GUI") **130** of such a content publishing application. In many of the examples described below, the content publishing application is used to author a book and prepare the book for publication. The content publishing application, in these examples, will be referred to as a book authoring application. However, the content publishing application of some embodiments can be used to create and/or publish other types of content such as a magazine, a comic book, a newspaper, an article, a newsletter, etc.

As shown in FIG. **1**, the GUI **130** includes a thumbnail display area **135**, a page display area **140**, a publish button **184**, and a publishing tool **100**. The GUI **130** also includes a set of controls **150** for editing a book by adding different items (e.g., text boxes, shapes, tables, charts). The thumbnail display area **135** (also referred to as a side panel) is an area within the GUI **130** through which the application's user can view thumbnail representations of the book's pages. The thumbnails are displayed sequentially starting from the title page to the last page. When the thumbnail display area **135** cannot fit all the pages, the book authoring application provides a scroll bar that can be used to scroll through the pages. Each thumbnail representation is a selectable item in the thumbnail display area **135**. At any time, the user can select a thumbnail representation to display the corresponding page in the page display area **140**.

The page display area **140** is the main work area for editing different pages of the book that the user is authoring with the application. For example, the user can use this area to write the book, format text, specify a page layout, and add images or other media to the book. When the book is ready for publishing, the user can select the publish button **184** to show the publishing tool **100**. The book authoring application of some embodiments provides a menu item and/or implements a shortcut key to activate the publishing tool **100**.

In some embodiments, the publishing tool **100** presents a step-by-step guide in preparing the book for publication. In the example illustrated in FIG. **1**, the publishing tool guides the user through associating version information to the book, generating a sample book, and exporting the book for publication. The sample book in some embodiments contains a selection of pages from a chapter of the book. Once the book is published, the sample book can be downloaded onto a person's device, so that the person can review it and decide whether to purchase the published book. As will be described in Section III below, the publishing tool of some embodiments guides the user through one or more other steps to prepare the book for publication. For instance, the publishing tool may guide the user through correcting issues that the application discovered when analyzing the book for publication. The publishing tool of some embodiments guides the user into signing into a publishing account and/or creating a new account if the user does not have one.

Having described the elements of the GUI **130**, the operations of publishing a book to a content distribution system will now be described by reference to different stages of the GUI that are illustrated in FIGS. **1** and **2**. Specifically, FIG. **1** illustrates in four operational stages **180**-**195** how the publishing tool **100** can be used to specify a version number for the book. This is followed by FIG. **2** that continues the series of operations to show how the publishing tool **100** can be used to generate a sample book.

In the first stage **180**, the user has written the book using the book authoring application. The thumbnail display area **135** displays thumbnail representations of the book's pages. The thumbnail representation **145** has been selected from the thumbnail display area **135**. As such, the book authoring application displays the corresponding page in the page display area **140**. To initiate the book publication process, the user selects the publish button **184**.

The second stage **185** illustrates the GUI **130** after the user has selected the publish button **184**. The selection results in the display of the publishing tool **100**. As shown, the publishing tool **100** includes two distinct sections **105** and **110**. The section **105** is shown on the left-hand side of the publishing tool **100**, while the section **110** is shown on the right-hand side. The section **105** lists a series of different steps that guides the user in exporting the book for publication. The steps include adding version information for the book, creating a sample book, and exporting the book. A marking (e.g., check mark) is displayed next to the current step that is being performed, and each other step that has been completed.

Different from the section **105**, the section **110** displays the current step in preparing the book for publication. The section **110** includes a heading **155** that identifies the current step. In the example shown in the second stage **185**, the current step is providing version information for the book. The section **110** includes a thumbnail representation **160** of the book. There are also two controls **175** and **177** (e.g., radio buttons) next to the thumbnail representation **160**. These controls **175** and **177** are for the user to specify whether the book is a new book or an update to a previously published book.

In some embodiments, the book authoring application automatically selects a particular control (**175** or **177**) based on the user's publication history. For instance, if the user has not published any books, the application may by default select the control **177**, which specifies the book as a new book. On the other hand, if the user has previously published a book, the application may by default select the control **175**, which specifies that the book is an update to a previously published book. To retrieve the user's publication history, the application of some embodiments requires that the user to log onto his or her content distribution account (e.g., publishing account).

In the second stage **185**, the user has selected the control **175** to specify that the book is an update to a previously published book. To continue with the publishing operations, the user selects the continue button **115**. Alternatively, the user can select the cancel button **120** to cancel the operations and return to a previous view (e.g., the one illustrated in the first stage **180**). The user can also select the help button **182** to display information on how to publish the book to the content distribution system.

The third stage **190** illustrates the GUI **130** after the user has selected the continue button **115**. The selection causes the section **110** to be modified. Specifically, the heading **155** now states that the user should choose a book and enter a version number for the chosen book. The publishing tool **100** includes a selectable item **165** for scrolling through different published books. Each time the user selects a published book through the item **165**, the body of the section **110** is updated with information (e.g. the book's title, last publication date, the current version number) relating to the previously published book. In addition, the publishing tool **100** includes a text field **170** for specifying a version number for the chosen book.

As shown in the third stage **190**, the information relating to the matching book is listed in the section **110**. Specifically, the section **110** displays the title of the book, the last publication date, and the current version number. Here, the user inputs a version number into the text field **170**. The fourth stage **195** shows the user selecting the button **115** to continue preparing the book for publication. In some embodiments, the book authoring application prevents the user from associating a version number to the book that is lower than the current version number. For example, if the published book is associated with a version number "1.1", the book authoring application and/or the content distribution system might prevent the updated book being associated with a lower version number (e.g., "1.0", "0.9", etc.).

Once the version information has been inputted, the book authoring application of some embodiments allows the user to choose whether to manually create a sample book or generate a sample book from the full-length book. FIG. **2** provides an illustrative example of choosing the option to generate a sample book. Four operational stages **205**-**220** are illustrated in this figure. These operations are continuations of the ones illustrated in the previous figure. As shown, the publishing tool's heading **155** states that the next step in preparing the book for publication is creating a sample book. The body of the section **110** states that the book authoring application will create a sample book using up to a predefined number of pages (e.g., 15 pages) from a chapter that is chosen by the user.

A drop-down list **225** is shown on the publishing tool **100**. When selected, the drop-down list **225** displays different chapters from the book. The user can select any one of the chapters to create the sample book. In the example illustrated in FIG. **2**, the section **110** includes a note that states that the user can also manually create a sample book and add it to a content delivery application (e.g., a producer application). In some embodiments, the content delivery application is an application for adding additional information (e.g., pricing, book category, book description) relating to the book and delivering the book to the content distribution system.

In the first stage **205**, the book authoring application has selected by default the first chapter as one that should be used to create the sample book. That is, the book authoring application has analyzed the book (1) to skip over one or more other sections (e.g., the table of contents, preface, about section, etc.), (2) to find the first real chapter of the book, and (3) to present it as the default selection in the drop-down list **225**.

As shown, the chapter is listed with its actual chapter title (e.g., name of the chapter) in the drop-down list.

The first stage **205** illustrates the selection of the drop-down list **225**. As shown in the second stage **210**, the selection results in the display of the book's chapters. The user then selects the second chapter as the one that should be used to create the sample book. Here, the drop-down list **225** includes an option **230** to manually create a sample book. The option **230** is listed as "None (I'll provide my own.)". As will be described in detail below, the user can manually create a sample book (e.g., with the book authoring application) and deliver it to the content distribution system along with the corresponding full version book.

The third stage **215** illustrates the publishing tool **100** after the user has selected the second chapter with the drop-down list **225**. The title of the second chapter is shown in the drop-down list **225**. The user then selects the continue button **115** to continue with preparing the book for publication.

In the fourth stage **220**, the user has stepped through all the different steps in preparing the book for publication. This is indicated by the publishing tool's heading **155**, which states that the user is ready to export the book. The user can export the book by selecting the export button **235**. In some embodiments, the book is formatted into a particular format that the content distribution system accepts and then exported as one or more files. The book authoring application of some embodiments exports the book as part of a bundle package bundle that includes the book and the sample book. The package bundle may be associated with other items, such as book metadata, cover art, media content, etc.

In some embodiments, the book authoring application is used to create the package bundle, and a separate application (e.g., a content delivery application) is used to input additional information relating to the book and deliver the package bundle to the content distribution system. However, the content authoring application of some embodiments provides a publishing tool to prepare and deliver the book to the content distribution system. In the example illustrated in the fourth stage **220**, the body of the section **110** states that the book authoring application will export the book, and a separate content delivery application (e.g., a producer application) will deliver the book to the content distribution system.

Once the book and its associated items are delivered, the content distribution system may review them and publish the book to a digital bookstore. FIG. **3** provides an illustrative example of how a published book appears on the bookstore of the content distribution system. Four operational stages **305-320** of a customer's device **300** are illustrated in this figure. The first stage **305** illustrates the device **300** displaying a GUI **365** of its operating system ("OS"). The GUI **365** includes selectable icons for opening different applications (e.g., messaging application, camera application, web browser, etc.). Several of the icons are displayed along a bar (e.g., a dock), while the remaining icons are displayed on the OS's desktop.

In the first stage **305**, the customer selects the icon **325** to open a digital content viewing application. Here, the digital content viewing application is a book application. The second stage **310** illustrates the device **300** after the book application has been opened. The book application's GUI includes a virtual bookshelf **330** with two shelves **331** and **332** for displaying different digital books. For instance, a previously purchased book **345** is shown as sitting on the top shelf **331** with its cover facing forward. Several selectable items are arranged along the top of the bookshelf. These items include an edit button **335** for deleting books or moving the books to another bookshelf, and a store button **340** for opening the digital bookstore.

The second stage **310** shows the customer selecting the store button **340**. As shown in the third stage **315**, the selection causes the book application to display the digital bookstore. The bookstore displays the published book. The customer might have first searched for the published book using the bookstore. The book is presented in the store with its cover image **352** and metadata. The metadata includes author, title, publisher information, seller information, category, print length (e.g., number of pages), and language. The metadata also includes the book's version number and the date that the book was last updated (**350**). Below the metadata are two buttons **355** and **356**, one **355** for purchasing the book and the other **356** for downloading the sample book.

In the third stage **315**, the customer selects the get sample button **356**. The fourth stage **320** shows the book application after the selection of the get sample button **356**. Specifically, it shows that the sample book **360** has been downloaded from the content distribution system and its visual representation is shown on the top shelf **331**. Different from a full version book, the sample book is displayed with a marking (e.g., a tag or a band) that identifies the book as a sample book.

Many more examples of publishing electronic documents are described below. However, before describing these examples, an example content authoring application of some embodiments will be described below in Section I. Section II then describes an example publishing model that is used to publish a book to the content distribution system. This is followed by Section III that describes examples of how an end-user (e.g., a customer) is notified of an update to a book. Section IV then describes examples of creating and viewing a sample book. Next, Section V describes software architecture of an image organizing and editing application of some embodiments. Finally, Section VI describes several example electronic systems that implement some embodiments described herein.

I. Example Content Publishing Application

Many examples of publishing electronic documents will be described below. However, before describing these examples, an example content authoring application of some embodiments will now be described by reference to FIG. **4**. FIG. **4** illustrates a graphical user interface ("GUI") **400** of a content authoring application that implements several of the publishing features described herein. As shown, the GUI **400** includes a thumbnail display area **405**, a page display area **410**, a publish button **415**, an add page button **430**, a glossary tool **435**, a preview tool **413**, and a set of editing tools **461-468**.

These controls and other aspects (e.g., the sample generation aspect) of the content authoring application are described in U.S. patent application Ser. No. 13/657,838, now published as U.S. Patent Publication 2014-0115449, entitled "Generating Sample Documents", concurrently filed with this application with. Also, these controls and other aspects (e.g., the document versioning aspect) of the content authoring application are described in U.S. patent application Ser. No. 13/657,829, now published as U.S. Patent Publication 2014-0115435, entitled "Creating and Publishing Different Versions of Documents", concurrently filed with this application. These concurrently filed U.S. Patent Applications are incorporated herein by reference.

As mentioned above, the thumbnail display area **405** (also referred to as a side panel) is an area within the GUI **400** through which the application's user can view thumbnail representations of the book's pages. The thumbnails are displayed sequentially starting from the title page to the last page. When the thumbnail display area **405** cannot fit all the pages, the book authoring application provides a scroll bar that can be used to scroll through the pages. Each thumbnail representation is a selectable item in the thumbnail display area **405**. At any time, the user can select a thumbnail representation to display the corresponding page in the page display area **410**.

In the example illustrated in FIG. **4**, the thumbnail display area **405** is segmented into two sections **450** and **455**. The first section **450** lists the title page, the introductory media page, the table of contents, and the glossary. In some embodiments, the introductory media is an introductory image that is shown or an introductory video clip that is played when the book is opened. The introductory media may be an audio clip in some embodiments. The application of some embodiments automatically builds the table of contents as the user adds new chapters and/or sections to the book. In some embodiments, the glossary includes definitions to different terms used in the book, links to related glossary terms, and/or an index to where the terms appear in the book.

As shown in FIG. **4**, the section **455** lists the remaining pages of the book that a user is authoring with the application. The section **455** may also be referred to as a document hierarchy. This is because it presents the pages in a hierarchical manner (e.g., starting with the first page of the chapter in the thumbnail display area **405**, a section page that is slighted indented therein, and the remaining pages that are event more indented therein). In some embodiments, the application provides a selectable item to collapse a hierarchical level. For example, the application might provide a selectable item to only show the first page of the chapter and hide the remaining pages of the chapter in the thumbnail display area **405**. The application of some embodiments allows the user to switch the thumbnail display area **405** from the thumbnail view to an outline view that presents an outline of the book.

The page display area **410** is a main work area for editing different pages of the book. For example, the user can use this area to write the book, format text, specify a page layout, and add images or other media to the book. Similar to a conventional word processing application, the user can also cut and paste text, drag text around, etc.

The application of some embodiments provides a variety of different tools to edit the book. Once such editing tool is an add page button **430** for adding additional pages to the book. In some embodiments, the selection of the add page button **430** causes the application to display different types of pages that the user can add to the book. Examples of such types of pages include a new chapter page, a preface, a section page, a copyright page, a dedication page, and a forward page. The pages may include different page layouts (e.g., one column layout, two-column layout) for the same type of page. The layout and/or design of the page are based on one of several different book templates. The application of some embodiments provides several different pre-designed templates from which the user can choose to create the new book. Each template may include the title page, the introductory media page, the table of contents, and the glossary.

As shown in FIG. **4**, the application provides several other tools to edit a book. For example, the user can use the orientation tool **460** to switch a book's page between a landscape orientation and a portrait orientation. In addition, the user can select (1) a text box tool **461** to add a text box to a page, (2) a shape tool **462** to add different shapes (e.g., circles, arrows, stars, etc.), (3) a table tool **463** to add tables, (4) a chart tool **464** to add different types of charts (bar charts, pie charts, etc.), and (5) a media tool **466** to add images, video clips, and audio clips. The GUI **400** also includes a font tool **468** for selecting a font for the book's text and a color tool **467** for selecting the color of the text.

The glossary tool **435** can be used to add terms to the glossary. The glossary tool **435** includes a text field **436** for inputting a term (e.g., one or more words) and an add button **437** to add the inputted term to the glossary. Alternatively, the user can select a term from a book's page to automatically fill in the text field. As mentioned above, the glossary of some embodiments includes definitions to different terms used in the book, links to related glossary terms, and/or an index to where the terms appear in the book. Accordingly, each glossary term may be associated with a particular page where that term appears in the book. Each term in the glossary is a selectable item that when selected causes the digital book to display the page that includes that term.

The preview tool **413** is a tool within the GUI that allows the user to preview the book on another device (e.g., a tablet). For example, the user can connect the device to the computer and open the content viewing application. In some embodiments, the selection of this tool causes the application to display a list of connected devices. The user can then select a particular device to display a preview of the book on that particular device.

One or ordinary skill in the art will also recognize that different display areas shown in the GUI **400** is one of many possible configurations for the GUI of some embodiments. For instance, some embodiments allow the user to modify the size of the various display areas within the GUI **400**. In addition, the application of some embodiments might provide different sets of controls. For example, the application might not provide tools to add text boxes, tables, and/or charts. The application of some embodiments might not provide any editing tool but may only provide tools to prepare and deliver electronic documents.

II. Publication Model

The content authoring application of some embodiments implements a publication model to prepare a document for publication and to publish the document to a content distribution system. An example workflow of preparing and publishing a document will now be described by reference to FIGS. **5-11**. These figures illustrate a series of example operations to publish a book to the content distribution system. These operations include (1) performing a pre-publish check of the book, (2) signing in to a distribution account, (3) adding version information, (4) creating a sample book, (5) exporting the book, and (6) delivering the exported book and its associated items to the content distribution system. These figures are followed by FIGS. **12-14** that conceptually illustrate several example processes that the application uses to prepare a document for publication.

A. Example Publication Workflow

In some embodiments, the content authoring application provides a publishing tool that guides a user through different operations in preparing a document (e.g., book, newspaper, comic book, magazine, newsletter, etc.) for publication. FIG. **5** provides an illustrative example of opening such a publishing tool. Three operational stages **535**, **540**, and **545** of the application's GUI **400** are shown in this figure. The application is the same as the one described above by reference to FIG. **4**.

In the first stage **535**, the user has written the book using the application. The thumbnail display area **405** displays thumbnail representations of the book's pages. The thumbnail representation **550** has been selected from the thumbnail display area **405**. As such, the application displays the corresponding page in the page display area **410**. To initiate the book publication process, the user selects the publish button **415**.

The second stage **540** illustrates the GUI **400** after the user has selected the publish button **415**. The selection results in the display of the publishing tool **500**. As shown, the publishing tool **500** includes a thumbnail representation of the book's cover page. The publishing tool also displays text **530** relating to the publication process. Specifically, the heading **525** indicates the purpose of the publishing tool, which is to publish the document to the content distribution system's bookstore. The body of the text **530** states that the application makes it easy to publish the book to the bookstore following a few simple steps. The text **530** also states that the user should select the continue button to publish the book. The publishing tool **500** also provides a link to a webpage where the user can learn more about publishing to the bookstore. As shown in the second stage **540**, the user selects the continue button **515**. Alternatively, the user can select the cancel button **520** to cancel the operations and return to a previous view (e.g., the one illustrated in the first stage **535**).

The third stage **545** illustrates the GUI **400** after the user has selected the continue button **515**. As shown, the publishing tool **500** now includes two distinct sections **505** and **510**. The section **505** is shown on the left-hand side of the publishing tool **500**, while the section **510** is shown on the right-hand side. The section **505** lists a series of different steps that guide the user in exporting the book for publication. The steps include performing a pre-publish check of the book, signing in to a distribution account, adding version information, creating a sample book, and exporting the book.

In the example illustrated in the third stage **545**, the body of the section **510** states that the book passed the pre-publish check. In some embodiments, the application analyzes a document to check whether the document is ready for publication. The analysis may entail searching for one or more of the following errors: missing file, missing fonts, invalid equations, empty equations, and problems with media optimization. Some of these errors are blocking errors that must be resolved prior to proceeding with the publication process, while others are non-blocking errors that do not need to be resolved in order to continue the publication process.

FIG. **6** provides an illustrative example of how the application presents non-blocking errors. Three operational stages **605**, **610**, and **615** of the application are shown in this figure. In the first stage **605**, the application displays the initial display area of the publishing tool **500**. As shown, the user selects the continue button **515** to continue with the publication process.

The second stage **610** illustrates the publishing tool **500** after the selection of the continue button **515**. Here, the application has analyzed the book and found several non-blocking errors. This is indicated by the heading, which states that the application has found some issues. The errors are listed by their types in the body of the section **510** as "missing file" and "missing font". In the second stage **610**, the user selects the continue button **515**.

The third stage **615** illustrates the publishing tool **500** after the selection of the continue button **515**. As shown, the selection causes the application to display detailed information regarding the errors. The errors are listed in a two-column table **620**, with the first column's heading being the error type and the second column's heading being the description. The description for the missing file error states that an image file is missing. The description for the missing font error states that a particular font could not be found. In some embodiments, the items in the table **620** are selectable items. For instance, when an item is selected, the application may show a page of the book where the corresponding error was found.

In the example illustrated in FIG. **6**, the application has analyzed the book and discovered the non-blocking errors. This is indicated by the note **625** placed above the table **620**, which states that resolving these issues is recommended but not required to continue. Hence, the user can select the continue button to step through the publication process.

FIG. **7** provides an illustrative example of how the application presents blocking errors. Three operational stages **705-715** of the application are shown in this figure. In the first stage **705**, the application displays the initial display area of the publishing tool **500**. As shown, the user selects the continue button **515** to continue with the publication process.

The second stage **710** illustrates the publishing tool **500** after the selection of the continue button **515**. Here, the application has analyzed the book and found several non-blocking as well as blocking errors. This is indicated by the heading, which states that the application has found some issues. The errors are listed by their types in the body of the section **510** as "invalid equation", "empty equation", "media optimization failure", "missing file", and "missing font". In the second stage **710**, the user selects the continue button **515**.

The third stage **715** illustrates the publishing tool **500** after the selection of the continue button **515**. As shown, the selection causes the application to display detailed information regarding the errors. The errors are listed in a two-column table **620**, with the first column's heading being the error type and the second column's heading being the description. The description for the missing file error states that an image file is missing. The description for the missing font error states that a particular font could not be found. The descriptions for the invalid and empty equations errors indicate the page numbers where those equations are found. The description for the optimization failure error states that a video clip has failed to optimize. The description also indicates the page number where the video clip was added.

In some embodiments, the optimization error is shown because of the size of the media clip and/or the format of the media clip. For example, the content distribution system may place restriction on the size of an electronic document. In such case, when a video clip places an electronic document over the size limit, the application may display the optimization error message.

The third stage **715** also illustrates that the application differentiates non-blocking errors from blocking errors. Specifically, the blocking errors are listed in the table **620** with a marking **725** (e.g., a colored dot). This is indicated by the note **720** above the table **620**, which states that the markings indicate issues that the user must resolve prior to publishing the book. The note **720** also states that the user should first resolve these issues, and then select the publish button (not shown) again. When there are one or more blocking errors, the application of some embodiments disables or does not show the continue button **515**.

When there are no blocking errors, the application of some embodiments allows the user to continue with preparation of the book for publication. FIG. **8** provides an illustrative example of signing in to a distribution account. Three operational stages **805-815** of the publishing tool **500** are illustrated in this figure. These operations are continuations of the ones illustrated in FIG. **5**.

In the first stage **805**, the publishing tool **500** displays a message **820**, which states that the book has passed the pre-publish check. The message **820** also states that the user should select the continue button to start the publication process. To start the process, the user selects the continue button **515**.

As shown in the second stage **810**, the selection of the continue button **515** causes the publishing tool **500** to display a login sheet **825** for signing in to the user's distribution account. This is indicated by the heading **525**, which states that the user should sign in to the distribution account (e.g., the publisher account). The login sheet **825** includes a username field **830** for inputting a username (e.g., an email address associated with the user) and a password field **835** for inputting a password. The login sheet **825** also includes a link **840** to a webpage for retrieving a forgotten username and/or password.

In the example illustrated in FIG. **8**, the login sheet **825** also includes a link **845** to a webpage for creating a distribution account. In some embodiments, the content distribution system allows an entity (e.g., a person, a company, an organization) to create a paid distribution account and/or a free distribution account. The paid account allows the entity to sell books and offer books for free on the content distribution system's bookstore. The paid account might require the entity to provide banking and tax information in order for the entity to receive payment. Different from the paid account, a free distribution account allows the entity to offer books for free in the bookstore.

In the second stage **810**, the user inputs the username into the username field **830**. The third stage **815** illustrates the publishing tool **500** after the user has inputted a password into the password field **835**. After inputting the password, the user selects the continue button **515** to sign in to the distribution account. The publishing tool **500** shows a spinner **850** and text **855**, which indicate that the application is attempting to sign in to the account.

Once the user has signed in, the application of some embodiments allows the user to specify whether the book is a new book or an update to a previously published book. FIG. **9** provides an illustrative example of defining the book as an update to a previously published book. Four operational stages **905**-**920** of the publishing tool **500** are illustrated in this figure. These operations are continuations of the ones illustrated in FIG. **8**.

In the first stage **905**, the publishing tool **500** is displaying a sheet **110** to specify whether the book is a new book or an update to a previously published book. The sheet **110** includes a heading **525**, which identifies the current step as providing version information for the book. There are also two controls **977** and **975** (e.g., radio buttons) below the heading **525**. These controls **977** and **975** are for the user to specify whether the book is a new book or an update to a previously published book. As mentioned above, the application of some embodiments automatically selects a particular control (**977** or **975**) based on the user's publication history and sets that control as the default control. For instance, if the user has not published any books, the application may by default select the control **977**, which specifies the book as a new book. On the other hand, if the user has previously published a book, the application may by default select the control **975**, which specifies that the book is an update to a previously published book.

In the first stage **905**, the control **975** has been pre-selected by the application based on the user's publication history. To continue with the publishing operations, the user selects the continue button **515**. Alternatively, the user can select the cancel button **520** to cancel the operations and return to the sign in sheet (not shown).

The second stage **910** illustrates the publishing tool **500** after the user has selected the continue button **515**. The selection causes the application to display a sheet **970**, which indicates that the application is attempting to retrieve a list of published books from the content distribution system. The sheet **970** is displayed with a marking **930** (e.g., a spinner) that provides a visual indication to the user that the application is awaiting response from the content distribution system.

The third stage **915** illustrates the publishing tool **500** after the application has retrieved the list of published books. As shown, the publishing tool **500** displays a sheet **975** to select a published book and enter a version number for the book. The sheet **975** includes a selectable item **935** for scrolling through different published books. Each time the user selects the item **935**, the body of the sheet **975** is updated with information (e.g. the book's title, last publication date, current version number) relating to a previously published book. In addition, the sheet **975** includes a text field **940** for specifying a version number for the chosen book.

As shown in the third stage **915**, the publishing tool **500** displays information relating to a different book than the one the user is trying to publish. This is shown in the sheet **975**, as the title **936** shown on the body of the sheet does not match the one shown on the book's thumbnail representation **938**. Here, the user selects the item **935** to scroll to another previously published book.

As shown in the fourth stage **920**, the information relating to the matching book is listed in the body of the sheet **975**. Specifically, the sheet **975** displays the title of the book **960**, the last publication date, and the current version number. As the matching book is listed, the user inputs a version number into the text field **940**. In some embodiments, the application prevents the user from associating a version number that is lower than the current version number to the book. For example, if a book is associated with a version number "1.1", the application and/or the content distribution system might prevent the book from being associated with a lower version number (e.g., "1.0", "0.9", etc.).

In some embodiments, the application allows the user to choose whether to automatically create a sample book or manually create the sample book. FIG. **10** provides an illustrative example of selecting an option to manually create a sample book for publication. Four operational stages **1005**-**1020** are illustrated in this figure. These operations are continuations of the ones illustrated in the previous figure.

In the first stage **1005**, the publishing tool **500** displays a sheet **1050** for creating a sample book. The sheet **1050** includes a heading **525** that identifies the current step as creating a sample book for the bookstore. The body of the sheet **1050** states that the application will create a sample book using up to a predefined number of pages (e.g., 15 pages) from a chapter of the book that is chosen by the user. The sheet **1050** also includes a drop-down list **1025**. When selected, the drop-down list **1025** displays different chapters from the book. The user can select any one of the chapters to create the sample book.

As shown in the first stage **1005**, the application has selected by default the first chapter as one that should be used to create the sample book. That is, the application has analyzed the book to skip over one or more sections (e.g., table of contents, preface, about section, etc.) to find the first real chapter of the book, and to present it as the default selection in the drop-down list **1025**. The selected chapter is listed with its actual chapter title in the drop-down list **1025**.

The first stage **1005** illustrates the selection of the drop-down list **1025**. As shown in the second stage **1010**, the selection results in the display of the book's chapters. The drop-down list **1025** also includes an option **1055** to manually create a sample book. The option **1055** is listed as "None (I'll provide my own.)". In the second stage **1010**, the user selects the option **1055** to manually create the sample book.

The third stage **1015** illustrates the publishing tool **500** after the user has selected the manual option **1055** from the drop-down list **1025** and the continue button **515**. Now the user has stepped through all the different steps in preparing the book for publication. This is indicated by the publishing tool's heading **525**, which states that the user is ready to export the book. As shown, the user selects the export button **1035** to export the book for publication.

The fourth stage **1020** illustrates the publication tool after the user selects the export button. The publishing tool displays a message stating the book is being exported. In addition, the progress of the export operation is shown by the progress bar **1040**. In some embodiments, the book is exported as part of a bundle package that includes the book and the sample book. The package bundle may be associated with other items, such as book metadata, cover art, media content, etc.

In some embodiments, the content authoring application is used to create the package bundle, and a separate application is used to input additional information relating to the book and to deliver the package bundle to the content distribution system. FIG. **11** provides an illustrative example of how the content authoring application interfaces with a content delivery application to deliver the prepared book and its associated items to the content distribution system. Four operational stages **1105**-**1120** are illustrated in this figure. These operations are continuations of the ones illustrated in the previous figure.

In the first stage **1105**, the publishing tool **500** displays a sheet **1135** that provides information on completing the publication process. Specifically, the heading **525** indicates that the user should finish the publishing with the content delivery application. The content delivery application is referred to in this figure as a "Producer Application". The body of the sheet **1135** states that the user should open the producer application to provide additional information and to deliver the book to the bookstore. The publishing tool **500** includes a button **1125** that when selected opens the content delivery application.

The first stage **1105** also illustrates the selection of the button **1125**. The selection of this button causes the content delivery application to be opened. Specifically, the content authoring application has created a package bundle (e.g., package file) that includes the book and its associated items, and the content delivery application has opened that package bundle.

As shown in the second stage **1110** of FIG. **11**, the content delivery application includes a GUI **1130**. The GUI includes a number of tabs **1131**-**1133** that are arranged on top of a display area **1140**. These tabs include a book tab **1131** for inputting book information, an asset tab **1132** for inputting asset information (e.g., book files, cover art, screenshots), and a delivery tab **1133** for delivering the package bundle to the content distribution system.

In the second stage **1110**, the book tab **1131** has been selected. Hence, the display area **1140** displays different fields for inputting information related to the book. The fields include (1) book type (e.g., book, textbook), (2) International Standard Book Number ("ISBN"), (3) language, (4) title, (5) subtitle, (6) publisher, (7) imprint, (8) publication date, (9) series name, (10) number in series, (11) display number, and (12) print length (e.g., pages). One or more of these fields (e.g., title, print length) may be pre-populated based on the book that is being published. Several of these fields are required for publishing the book. In some embodiments, the content delivery application provides a field to input a version number. The content delivery application may also include a field to input an update date.

In the example illustrated in the second stage **1110**, the GUI **1130** includes several tabs **1145** that are arranged along the bottom of the display area **1140**. Any one of these tabs can be selected to input other information related to the book. For example, the GUI includes a Categories tab to input category information for the book, an Authors tab to input author information, a Target Audience tab to input target audience information, a Related Products tab to input related products information, and a Rights and Pricing tab to input rights and pricing information.

In the second stage **1110**, the user selects the asset tab **1132**. As shown in the third stage **1115**, the selection causes the display area **1140** to display an asset menu. With this menu, the user can select (1) a book for publication, (2) a sample book, (3) cover art, and (4) screenshots. In some embodiments, the screenshots are images that are shown along with the book on the content distribution systems' bookstore. Here, the upload area **1150** shows that the book has been selected for publication. The user does not have to manually choose a publication file (e.g., a book file) using the choose button **1155**. However, the upload area **1150** shows that the sample book has not been selected for publication. This is because the user opted to create the sample book manually.

The fourth stage **1120** illustrates the GUI **1130** after the user has chosen a sample book file and selected the delivery tab **1133**. As shown, the content delivery application has presented a delivery sheet **1160**. The delivery sheet **1160** includes text that states the book package has been validated, and that the user should select the deliver button to upload the package to the content distribution system. In some embodiments, the delivery sheet **1160** displays a list of additional information that must be inputted prior to delivering the package. In the fourth stage **1120**, the user selects the deliver button **1165** to upload the complete publication package to the content distribution system. Once the content distribution system receives the package, the system may review the package and then publish the book on its bookstore.

B. Example Processes

In the examples described above, the content authoring application performs a number of different operations to prepare a document for publication. These operations include performing a pre-publish check of the document, signing in to a distribution account, adding version information, creating a sample document, and exporting the document. Several example processes for publishing a document will now be described by reference to FIGS. **12**-**14**.

1. Publication Process

FIG. **12** conceptually illustrates a process **1200** performed by some embodiments to publish a document to the content distribution system. In some embodiments, the process **1200** is performed by the content authoring application. As shown, the process **1200** begins when it receives (at **1205**) an input to publish a book. For example, the process might receive this input through a selectable user interface item (e.g., the publish button, a menu item). The process **1200** then analyzes (at **1210**) the book for any errors. Several examples of analyzing a book for errors are described above by reference to FIGS. **6** and **7**. In addition, an example process for analyzing a book will be described below by reference to FIG. **13**.

At **1215**, the process **1200** determines whether there are any errors. When there are no errors, the process **1200** proceeds to **1230**, which is described below. Otherwise, the process **1200** displays (at **1220**) those errors. In displaying the errors, the process **1200** might differentiate errors that require corrections from other errors that do not require corrections. In the example shown in FIG. **7**, each error that requires correction is shown with a flag or a marking (e.g., a dot).

Returning to FIG. **12**, the process **1200** determines (at **1225**) whether to continue preparing the book for publication. If the process **1200** determines (at **1225**) not to continue, the process ends. For example, the user might choose to correct the errors, or the application may require the user to correct those errors. If an input is received to continue with the preparation, the process **1200** proceeds to **1230**.

The process **1200** accesses (at **1230**) the content distribution account that is associated with the user. In accessing the account, the process **1200** might receive input of username and password from the user. The process **1200** then determines (at **1235**) whether to add version information for the book. If the book is a new book, the process **1200** proceeds to **1245**, which is described below. If the book is an update, the process specifies (at **1240**) that the book is an update to a previously published book. In specifying the book as an update to a previously published book, the process **1200** might receive identification of the previously published book. The process **1200** may also receive an input of a new version number.

At **1245**, the process **1200** determines whether to generate a sample book. If an input is received to manually create the sample book, the process **1200** proceeds to **1255**, which is described below. If an input is received to generate the sample book, the process **1200** generates (at **1250**) the sample book from the full-length book that is being prepared for publication. The sample book may include a selection of pages from a chapter selected by the user. An example process for generating a sample book will be described in detail below by reference to FIG. **23**.

As shown in FIG. **12**, the process **1200** creates (at **1255**) a package bundle to deliver to the content distribution system. In some embodiments, the package bundle includes the book and the sample book. The package bundle may also include other items, such as book metadata, cover art, media content, etc.

Some embodiments perform variations on the process **1200**. The specific operations of these processes **1200** may not be performed in the exact order shown and described. The specific operations may not be performed in one continuous series of operations, and different specific operations may be performed in different embodiments. For instance, the process **1200** might not allow a user to specify that the book is an update to a previous published book. Also, the process **1200** might not generate the sample book and/or access the user account information. Furthermore, the process **1200** could be implemented using several sub-processes, or as part of a larger macro process.

2. Error Analysis Process

As mentioned above, the content authoring application of some embodiments performs a pre-publish check to discover errors in a document. In some embodiments, the pre-publish check entails identifying blocking errors and non-blocking errors. The blocking errors are those that can prevent the document from being published. For example, the content distribution system may place a limit on the file size of the document, and the analysis may entail identifying whether the document exceeds the size limit. Different from blocking errors, non-blocking errors are those that may be noticeable in the published document but do not need to be corrected prior to publication.

FIG. **13** conceptually illustrates a process **1300** performed by some embodiments to analyze a book to identify errors. The process **1300** in some embodiments is performed by the content authoring application. The process **1300** begins when it receives (at **1305**) input to analyze the book. For example, the process **1300** may be directed to perform the pre-publish analysis in response to a user input to publish the book.

At **1310**, the process **1300** determines whether there are any missing files. If there are no missing files, the process **1300** proceeds to **1320**, which is described below. However, if there are missing files, the process identifies (at **1315**) each missing file. For example, the book might refer to an image, an audio clip, or a video clip that cannot be found on the storage system.

The process **1300** determines (at **1320**) whether there are any missing fonts. If there are no missing fonts, the process **1300** proceeds to **1330**, which is described below. However, if there are missing fonts, the process identifies (at **1325**) each missing font. The missing font error can happen when a font is deleted from a computing device or when a book page is edited on two different computing devices with different fonts. In some embodiments, the process **1300** might present a prompt that requires the user to verify the licenses of several fonts. For example, the book may contain fonts that do not come pre-installed on a tablet's OS. The prompt may list the fonts that are in question, and may state that the user should make sure that the licenses for the fonts give user the permission to distribute the electronic book with these fonts. Furthermore, the prompt may ask that the user consult with the license agreements for the fonts or contact the fonts creator in order to validate the user's permissions.

As shown in FIG. **13**, the process **1300** determines (at **1330**) whether there are any equation errors. Here, the process of some embodiments analyzes the book to identify improperly formatted equations and/or empty equations. For instance, the book might be missing an equation where there should be one, or the book might have an equation that is not written correctly (e.g., a mathematic symbol is in the wrong place, a wrong symbol is used, etc.). If there are no equation errors, the process **1300** proceeds to **1340**, which is described below. However, if there are equation errors, the process identifies (at **1335**) each equation error.

At **1340**, the process **1300** determines whether there is any media content that cannot be optimized. If not, the process **1300** proceeds to **1350**, which is described below. However, if there is media content that cannot be optimized, the process identifies (at **1345**) each piece of such media content. In some embodiments, the process identifies each piece of media (e.g., image, audio clip, video clip) that is over a particular size and/or the media whose format is not a supported format.

The process **1300** determines (at **1350**) whether any errors have been found based on the analysis of the book. If so, the process **1300** presents (at **1355**) a list of errors. Several examples of displaying different errors are described above by reference to FIGS. **6** and **7**. The process **1300** then ends.

Some embodiments perform variations on the process **1300**. The specific operations of these processes **1300** may not be performed in the exact order shown and described. The specific operations may not be performed in one continuous series of operations, and different specific operations may be performed in different embodiments. For instance, the order of the analysis is arbitrary as the process might check one type of error before the other. In addition, the process **1300** might run multiple threads to analyze the book for different types of errors. Furthermore, the process **1300** could be implemented using several sub-processes, or as part of a larger macro process.

3. Adding Version Information Process

The content publishing tool of some embodiments allows a user to specify that a book is a new book or an update to a previously published book. FIG. **14** conceptually illustrates a process **1400** performed by some embodiments to specify a version number for a book. The process **1400** in some embodiments is performed by the content authoring application.

As shown in FIG. **14**, the process **1400** begins when it accesses (at **1405**) a list of publications in a book publishing account. To access the account, the process **1400** might first receive account's username and password from the user. An example of such a sign in operation is described above by reference to FIG. **8**.

Next, the process **1400** determines (at **1410**) whether the current book is an update to a previously published book. If it is not, the process **1400** specifies (at **1415**) the book as a new book and ends. In some embodiments, the process **1400** automatically specifies the book as a new book when the account has no publication history. For example, if the user has not published any book, the process **1400** might by default specify the book as a new book.

If the book is an update to a previously published book, the process **1400** receives (at **1420**) identification of a published book for the book. The process **1400** then receives (at **1425**) input of a version number for the book. The process **1400** then specifies (at **1430**) a version number for the book according to the inputs received at **1425**. The process **1400** then ends. Some embodiments perform variations on the process **1400**. The specific operations of the process **1400** may not be performed in the exact order shown and described. The specific operations may not be performed in one continuous series of operations, and different specific operations may be performed in different embodiments. Furthermore, the process **1400** could be implemented using several sub-processes, or as part of a larger macro process.

III. Version Update

In several of the example described above, the content authoring application allows its user to specify that a document is an update to a previously published document. The content distribution system of some embodiments implements a publishing model that provides documents as an evolving piece of work that change over time. For example, when a document is updated, an end-user (e.g., customer) may be notified through the content distribution system that there is an update to the document. The user can then user his or her device to download the update. Several examples of updating a document will now be described by reference to FIGS. **15-17**.

FIG. **15** provides several example notifications that are shown on an end user's device when there is a new version of a published book. Three operational stages **1505-1515** of the end user's tablet are shown in this figure. The first stage **1505** illustrates the end-user receiving a notification about an update to a book. Specifically, the notification is received through a digital content viewing application that displays a marking on the device at the operating system level. In this example, the marking is a badge **1520** on the icon **1525** of the digital content viewing application. The badge **1520** includes a number that identifies the number of books with an update. For example, the number "1" on the badge **1520** provides a visual indication to the end-user that there is one new book update available.

In the first stage **1505**, the user selects the icon **1525**. As shown in the second stage **1510**, the selection causes the content viewing application to display its GUI **1530**. The GUI **1530** includes a virtual bookshelf **1535** with two shelves **1536** and **1537** for displaying different representations of digital books. Here, a previously purchased book **1540** is shown as sitting on the top shelf **1536** with its cover facing forward. Several selectable items (e.g., **1545** and **1550**) are arranged along the top of the bookshelf **1535**. These items include an edit button **1545** for deleting books or moving the books to another bookshelf, and a store button **1550** for opening the digital bookstore.

The second stage **1510** illustrates that the end-user is notified of the update at the application level. Specifically, the store button **1550** is displayed with a marking **1555**. Similar to marking on the icon, the content viewing application has badged the store button **1550** with a number that identifies the number of books with an update. As shown in the second stage **1510**, the end-user selects the store button **1510**.

The third stage **1515** illustrates that the end-user is notified of the update at the menu level. In particular, the update button **1560** is displayed with a badge **1565** that contains the same number. As mentioned above, this number identifies the number of books with an update. To proceed with the update, the end-user selects the update button **1560**.

FIG. **16** provides an illustrative example of updating a book to a new version. Three operational stages **1605-1615** of the end user's device are illustrated in this figure. These operations are continuations of the ones illustrated in the previous figure. The first stage **1605** illustrates the content viewing application after the user has selected the update button in the previous figure. As shown, the application displays an update menu **1620**. In some embodiments, the update menu **1620** lists each full-length book that the user obtained (e.g., purchased and downloaded) and that has been updated.

In the first stage **1605**, the update menu **1620** lists one book. The book is listed in the menu with the current version number **1621** and the book's update date **1622**. The book is also listed with information **1623** that identifies the changes from the previous version. Here, the information **1623** states that the book has been updated with a new chapter and an extended glossary. In addition, the menu **1620** includes an update button **1625** for downloading the latest version of the book.

The second stage **1610** shows the content viewing application after the selection of the update button **1625**. As shown, the application displays a pop-up window **1635** to access the user's content store account. The pop-up window **1635** includes a text input field **1636** for inputting password, an "OK" button for confirming the inputted password, and a "Cancel" button for closing the pop-up window.

In the third stage **1615**, the content viewing application displays the bookshelf view **1630** after accessing the user's store account and receiving authorization to update the book. As shown, the selection of the "OK" button from the pop-up window **1635** (or the update button **1625** if the user has previously signed in to the user account) results in the application downloading an update to the book. The progress bar **1640** is shown over the book's thumbnail representation. This bar provides a visual indication to the end-user of the amount of data has been downloaded and of the remaining data that need to be downloaded in order to update the book to the new version. When the updated version is downloaded, the user can then select the book's thumbnail representation (e.g., from the virtual bookshelf) to open the book and review its contents. In some embodiment, the new version of a document replaces the old version of the same document. However, the content viewing application might retain the old version or provide an option to retain it, so that the application's user can choose which version to view.

In the previous example, the content viewing application provides several notifications informing the end-user of an update to a book. In some embodiments, the content viewing application provides a notification regarding an available document update upon selection of the document's representation. This notification may be a one-time notification. That is, the notification may be displayed only once with each update.

FIG. **17** provides an illustrative example of displaying a notification upon selection of a representation of a book. Four operational stages **1705-1720** of the end-user's device are illustrated in this figure. In the first stage **1705**, the content viewing application has been opened. The bookshelf **1725** displays a representation for each book. Here, the user selects the representation **1730** of a book. As shown in the second stage **1710**, the selection causes the application to display a pop-up window **1735**. The window **1735** includes a message and several buttons. The message states that an update of the selected book is available. Specifically, the message states that a newer version of the book is available from the bookstore. The book is identified by its name in this window. The window **1735** also includes a "Not Now" button **1740** to not update the book at this moment, and an "Update" button **1745** to proceed with the update.

In the second stage **1710**, the end-user selects the update button **1745**. The selection causes the application to display the update menu **1620**, as illustrated in the third stage **1715**. The user then selects the update button **1625** to update the book to the newer version. As shown in the fourth stage **1720**, the selection of the update button **1625** results in the application downloading an update to the book. The progress bar **1640** is shown over the book's thumbnail representation. This bar provides a visual indication to the end-user of the amount of data that needs to be downloaded to update the book to the new version.

Having described several example update notifications, an example process for presenting such notifications will now be described by reference to FIG. **18**. This figure conceptually illustrates a process **1800** performed by some embodiments to present update notification regarding a document. In some embodiments, the process **1800** is performed by the content viewing application.

As shown in FIG. **18**, the process **1800** begins by receiving (at **1805**) a message regarding a book update from the book publisher. The process **1800** then retrieves (at **1810**) a list of books from the content distribution system (e.g., the book publisher). From the retrieved list, the process **1800** identifies (at **1815**) the book with the update. Next, the process **1800** displays (at **1820**) a set of notifications regarding the updated book. Several different example notifications are described above. For instance, the process **1800** might mark an icon with a marking (e.g., a badge) at the operating system level. Alternatively, or conjunctively with the icon, the process **1800** may mark a user interface item (e.g., a store button) at the application level, and/or a menu item (e.g., an update menu button) at the menu level. The process **1800** might also provide a notification (e.g., in a pop-up window) when the book is selected, as shown in FIG. **17**.

At **1825**, the process **1800** determines whether to update the book. For example, the process **1800** might receive a user input to download the update from the content distribution system. When such an input is received, the process **1800** retrieves (at **1830**) the updated book from the content distribution system (e.g., the book publisher). Next, the process **1800** removes (at **1835**) the set of notifications regarding the updated book. The process **1800** then terminates.

Some embodiments perform variations on the process **1800**. The specific operations of these processes **1800** may not be performed in the exact order shown and described. The specific operations may not be performed in one continuous series of operations, and different specific operations may be performed in different embodiments. Furthermore, the process **1800** could be implemented using several sub-processes, or as part of a larger macro process.

IV. Creating Samples

The content authoring application of some embodiments provides a document-sampling tool for generating a sample document. This tool allows a user to identify a section of a document (e.g., a chapter of a book) and generate a sample document that includes a selection of pages from that section. Different heuristics can be used to generate the sample document using the pages from the section. For example, the sample document may be generated using a predefined percentage (e.g., 20%) of the pages of the section up to a maximum of a predefined number of pages (e.g., 20 pages). The heuristics of the sample generation may also specify that the sample document include a minimum of some number of pages (e.g., three pages).

In some embodiments, the sample book includes one or more other items, such as an introductory media and a glossary. The introductory media is an introductory image that is shown or an introductory video or audio clip that is played when the book is opened. The glossary includes definitions to different terms used in the book, links to related glossary terms, and/or an index to where the terms appear in the book. An example of creating a sample book will now be described by reference to FIGS. **19** and **20**.

In some embodiments, the content authoring application provides editing tools to author a book that contains an introductory media and a glossary. FIG. **19** provides an illustrative example of editing a book. Specifically, this figure illustrates in four operational stages **1905-1920** how the content authoring and publishing application can be used to add an introductory media and a new chapter to the book. As shown, the figure includes the application's GUI **400** that is the same as the one describe above by reference to FIG. **4**.

In the first stage **1905**, the GUI **400** displays the book that the user is authoring with the application. The thumbnail display area **405** displays thumbnail representations of the book pages. Here, the thumbnail representation **1925** of the introductory media page has been selected from the thumbnail display area **405**. As such, the book authoring application displays a page for adding an introductory media. The page includes a note **1930**. The note **1930** states that the user can add an introductory media to the book by dragging and dropping a video clip or an image onto the page.

The second stage **1910** illustrates the GUI **400** after adding a video clip **1932** to the introductory media page. Specifically, the GUI **400** shows a frame of the video clip **1932** that has been added as the introductory media for the book. In this example, the video clip **1932** is now an introductory video that will be played when the book is opened. For example, when a customer purchases the published book and opens it, the video clip **1932** will automatically be played prior to displaying the first page.

The third stage **1915** illustrates an example of adding a new chapter to the book. Specifically, the user select the add page button **430**. The selection causes the application to displays a drop-down list **1935** that includes different types of pages that can be added to the book. In this example, the drop-down list **1935** includes a chapter menu **1936**, a section menu **1937**, and a pages menu **1938**. When the chapter menu **1936** is selected, the drop-down list **1935** reveals an item **1940** for creating a new chapter and an item **1941** for creating a preface.

In the third stage **1915**, the user selects the item **1940** to create a new chapter. The fourth stage **1920** illustrates the GUI **400** after the user has selected the item **1940**. As shown, the selection results in a new chapter being added to the book. This is shown in the thumbnail display area **405** that shows a representation of the new chapter page **1950**. As the thumbnail representation **1950** is selected from the thumbnail display area **405**, the page display area **410** displays the new chapter page **1955**.

FIG. **20** provides an illustrative example of adding a term to a glossary of the book. Four operational stages **2005-2020** of the GUI **400** are shown in this figure. These operations are continuations of the ones shown in the previous figure. The GUI **400** includes the glossary tool **435** as described above by reference to FIG. **4**. In the first stage **2005**, the user has edited a page **2035** of the book. In the second stage **2010**, a term **2025** has been selected from the page of the book. The selection causes the text field **436** to be populated with the term **2025**. Alternatively, the user can type in the term **2025** into the text field **436**. As shown in the third stage **2015**, the user selects the add button **437** to add the term to the glossary.

The fourth stage **2020** illustrates the GUI **400** after the selection of the add button **437** of the glossary tool **435**. The selection results in the display of a page **2030** of the glossary. As mentioned above, the glossary of some embodiments includes definitions to different terms used in the book, links to related glossary terms, and/or an index to where the terms appear in the book. Accordingly, each glossary term may be associated with a particular page where that term appears in the book. Each term in the glossary is a selectable item that when selected causes the digital book to display the page that includes that term.

FIG. **21** provides an illustrative example of creating a sample book from the full-length book that the user has written with the application. Two operational stages **2105** and **2110** of the content authoring and publishing application are shown in this figure. These operations occur after the one shown in the previous FIGS. **19** and **20**.

As shown in first stage **2105**, the application displays the publishing tool **500**. The user might have first selected the publish button to display this tool. Also, the application has guided the user through several other operations in preparing the book for publication. In the example illustrated in FIG. **21**, these operations included performing a pre-publish check, signing in to the content distribution account, and version information.

In the first stage **2105**, the publishing tool **500** displays a sheet **1050** for creating a sample book. The sheet **1050** includes a heading **525** that identifies the current step as creating a sample book for the bookstore. The body of the sheet **1050** states that the application will create a sample book using up to a predefined number of pages (e.g., 15 pages) from a chapter of the book that is chosen by the user. The sheet **1050** also includes a drop-down list **1025**. When selected, the drop-down list **1025** displays different chapters from the book. The user can select any one of the chapters to create the sample book.

As shown in the first stage **2105**, the application has selected by default the first chapter as one that would be used to create the sample book. That is, the application has analyzed the book to skip over one or more other sections (e.g., the table of contents, preface, about section, etc.), to find the first real chapter of the book, and to present it as the default selection in the drop-down list **1025**. The chapter is listed with its actual chapter title in the drop-down list **1025**. In the second stage **2110**, the user selects the option **2120** to create the sample book from the second chapter.

FIG. **22** provides an illustrative example of the sample book appearing on an end-user's device. Four operational stages **2205**-**2220** of the end user's device are illustrated in this figure. These operations occur after the sample book has been published and downloaded on the end user's device.

In the first stage **2205**, the content viewing application has been opened to display a GUI **2235**. A thumbnail representation **2225** of the book is shown on a shelf **2245** of the virtual bookshelf **2240**. As shown, the user selects the thumbnail representation **2225** to open the sample book. The second stage **2210** illustrates the content viewing application after the book has been opened. The book opened to a video clip **1932**. This is the same video clip that was added to the full-length book in the example of FIG. **19**.

The third stage **2215** illustrates the content viewing application displaying a first page of the second chapter of the book. This is the same chapter that was selected in the example described above by reference to FIG. **21**. The fourth stages **2220** illustrates the content viewing application displaying the glossary **2230** of the sample book. The glossary **2230** includes only one term added with the content authoring application, as described above by reference to FIG. **20**.

Having described an example of creating a sample books, an example process for creating a sample book will now be described. FIG. **23** conceptually illustrates a process **2300** performed by some embodiments to create a sample book from a full-length book. In some embodiments, the process is performed by the content publishing application. The process **2300** begins when it identifies (at **2305**) a list of chapters from the book for creating the sample book. For example, the process might analyze pages of the book to skip over one or more sections (e.g., the table of contents, preface, about section, etc.) to identify the chapters.

Next, the process **2300** displays (at **2310**) the list of chapters. Specifically, the process **2300** displays this list for a user to select a chapter from the full-length book. The process **2300** then creates (at **2315**) the sample book. The process **2300** then adds (at **2320**) introductory media, if there is any, to the sample book. The process **2300** then adds (at **2325**) the first x number of pages from the selected chapter to the sample book. For example, the process might attempt to add, at a minimum, the first x number (e.g., three) of pages to the sample book. This entails adding the entire chapter if the number x is equal to or greater than the number of pages in the chapter.

Next, the process **2300** determines (at **2330**) whether the number of pages of the sample book is less than a certain percentage of the selected chapter. For example, the process might generate the sample book using twenty percent of the pages from the chapter of the full-length book. If the number of pages is not less than the percentage, the process **2300** proceeds to **2345**, which is described below. If the number of pages is less than the percentage, the process **2300** determines (at **2335**) whether the number of pages of the sample book is less than a threshold number. For example, the process might generate the sample book from up to a maximum of the first y number of pages (e.g., 20 pages or 15 pages) from the chapter.

If the number of pages is not less than the threshold number, the process **2300** proceeds to **2345**. Otherwise, the process **2300** adds (at **2340**) a next page of the chapter to the sample book. At **2345**, the process **2300** adds a glossary for pages of the sample book. The process **2300** then terminates.

Some embodiments perform variations on the process **2300**. The specific operations of the process **2300** may not be performed in the exact order shown and described. The specific operations may not be performed in one continuous series of operations, and different specific operations may be performed in different embodiments. Furthermore, the process **2300** could be implemented using several sub-processes, or as part of a larger macro process.

V. Architecture

A. Example Software Architecture

In some embodiments, the processes described above are implemented as software running on a particular machine, such as a computer or a handheld device, or stored in a machine-readable medium. FIG. **24** conceptually illustrates the software architecture of a document authoring application

2400 of some embodiments. In some embodiments, the document authoring application is a stand-alone application or is integrated into another application, while in other embodiments the application might be implemented within an operating system. Furthermore, in some embodiments, the application is provided as part of a server-based solution. In some such embodiments, the application is provided via a thin client. That is, the application runs on a server while a user interacts with the application via a separate machine remote from the server. In other such embodiments, the application is provided via a thick client. That is, the application is distributed from the server to the client machine and runs on the client machine.

The application **2400** includes a user interface (UI) interaction and generation module **2405**, an editing modules **2415**, a document publisher **2420**, a preview generator **2425**, an account access manager **2430**, a page adder **2435**, a document editor **2440**, and a glossary generator **2445**. As shown, the user interface interaction and generation module **2405** generates a number of different UI elements, including a side panel **2402** (also referred to as a thumbnail display area), a main display area **2404** (also referred to as a page editor), a set of editing tools **2406**, a glossary tool **2408**, an add page tool **2412**, a publishing tool **2414**, and a preview tool **2432**. Many of these user interface items are described in detail above by reference to FIG. **4**.

The figure also illustrates stored data associated with the application, namely template data **2426** relating to pre-designed document templates, media data **2428** relating to different types of media content (e.g., video clip, audio clip, images, etc.), and document data **2432** relating to documents created with the application. In some embodiments, the templates data **2426** stores template files that define different types of documents a user can create with the document authoring application **2400**. The media data **2428** stores various types of media files (e.g., still image files, video files, audio files, combined video and audio files, etc.) imported into the application. The documents data **2432** of some embodiments stores user-created documents that may incorporate or refer to media **2428** and templates **2426**. In some embodiments, the documents **2432** are stored by the document authoring application as hierarchical structures (e.g., organized into chapters, sections, etc.).

In some embodiments, the three sets of data **2426**, **2428**, and **2432** are stored in one physical storage (e.g., an internal hard drive, external hard drive, etc.). In some embodiments, the data may be split between multiple physical storages. For instance, the template files **2426** and media files **2428** might be stored in one physical storage, while the user-created documents are stored in a separate physical storage. In addition, some or all of the data **2426**, **2428**, and **2432** may be stored across multiple physical storages in some embodiments.

FIG. **24** also illustrates an operating system **2470** that includes input device driver(s) **2475**, display module **2480**, peripheral interface **2485**, and network interface **2410**. In some embodiments, as illustrated, the device drivers **2475**, display module **2480**, peripheral interface **2485**, and network interface **2410** are part of the operating system even when the document authoring application **2400** is an application separate from the operating system.

The input device drivers **2475** may include drivers for translating signals from a keyboard, mouse, touchpad, tablet, touchscreen, etc. A user interacts with one or more of these input devices, which send signals to their corresponding device driver. The device driver then translates the signals into user input data that is provided to the UI interaction and generation module **2405**.

The input device drivers **2475** may include drivers for translating signals from a keyboard, mouse, touchpad, tablet, touchscreen, etc. A user interacts with one or more of these input devices, each of which send signals to its corresponding device driver. The device driver then translates the signals into user input data that is provided to the UI interaction and generation module **2405**.

The present application describes a graphical user interface that provides users with numerous ways to perform different sets of operations and functionalities. In some embodiments, these operations and functionalities are performed based on different commands that are received from users through different input devices (e.g., keyboard, trackpad, touchpad, mouse, etc.). For example, the present application illustrates the use of a cursor in the graphical user interface to control (e.g., select, move) objects in the graphical user interface. However, in some embodiments, objects in the graphical user interface can also be controlled or manipulated through other controls, such as touch control. In some embodiments, touch control is implemented through an input device that can detect the presence and location of touch on a display of the device. An example of such a device is a touch screen device. In some embodiments, with touch control, a user can directly manipulate objects by interacting with the graphical user interface that is displayed on the display of the touch screen device. For instance, a user can select a particular object in the graphical user interface by simply touching that particular object on the display of the touch screen device. As such, when touch control is utilized, a cursor may not even be provided for enabling selection of an object of a graphical user interface in some embodiments. However, when a cursor is provided in a graphical user interface, touch control can be used to control the cursor in some embodiments.

The display module **2480** translates the output of a user interface for a display device. That is, the display module **2480** receives signals (e.g., from the UI interaction and generation module **2405**) describing what should be displayed and translates these signals into pixel information that is sent to the display device. The display device may be an LCD, plasma screen, CRT monitor, touchscreen, etc.

The peripheral **2485**, in some embodiments, allows for a peripheral device to connect (either via a wired (e.g., USB, Firewire) connection or a wireless (e.g., Bluetooth, Wi-Fi) connection) to the machine on which the operating system **2470** and document authoring application **2400** run. Examples of such peripheral devices may include smart phones (e.g., an iPhone), specialized electronic book readers, or more generic tablets (e.g., an iPad) that include electronic book reader functionality. The preview generator **2425** of some embodiments interfaces with an external device user the peripheral **2485** to provide a preview of a document. The preview may be based on user input (e.g., the user's selection of the external device) received through the preview tool **2432**.

The network interface **2410** represents one or more connections to various types of networks, through which the document authoring application **2400** may upload published documents (e.g., to a content distribution system). These network connections may include Wi-Fi or other wireless connections, Ethernet or other wired connections, etc.

The UI interaction and generation module **2405** of the document authoring application **2400** interprets the user input data received from the input device drivers and passes it to various modules. The UI interaction and generation module

2405, in some embodiments, generates a number of different UI elements. These elements, in some embodiments, include the side panel **2402**, the main display area **2404**, the set of editing tools **2406**, the glossary tool **2408**, the add page tool **2412**, the publishing tool **2414**, and the preview tool **2432**.

The UI interaction and generation module **2405** also manages the display of the document authoring application GUI, and outputs this display information to the display module **2480**. This UI display information may be based on information from the document editor **2440**, the document publisher **2420**, etc. In addition, the module **2405** may generate portions of the UI based solely on user input—e.g., when a user moves an item in the UI that only affects the display rather than any of the other modules, such as moving a window from one side of the UI to the other. In some embodiments, the UI interaction and generation module **2405** generates a basic GUI and populates the GUI with information from the other modules and stored data (e.g., the document data **2432**).

The preview generator **2425** of some embodiments generates a preview of an electronic document (e.g., an electronic book) in order to allow a user to see how a document currently being edited will look in its final form. In some embodiments, the preview generator **2425** generates the preview of the document and sends this preview through the peripheral interface **2485** to an external electronic document reader device (e.g., a smart phone, a table computer, a specialized e-book reader, etc.). In addition, in some embodiments the document authoring application **2400** allows the user to preview the document through the application's user interface. The preview generator of some such embodiments can send the preview to the UI interaction and generation module **2405** for display in the authoring application user interface.

The document editor **2440** in some embodiments includes a set of modules to format text, specify a document layout, change color of text, specify different fonts, etc. The editing modules **2415** enable a user to create documents (e.g., word processing documents, electronic books, etc.) with a variety of equations, media (e.g., audio, video), electronic book constructs (e.g., graphs, sidebars, popovers, etc.), and other features. Example editing operations include adding text boxes, shapes, tables, charts, media content, etc.

The account access manager **2430** communicates with the document publisher **2420** to sign-in to the content distribution account and retrieve account information. For example, the document publisher **2420** may communicate with the account access manager **2430** to retrieve the user's publication history. The document publisher **2420** may then use the publication history to assist the user in providing version information relating to a document.

The page adder **2435** interfaces with the add page tool **2412** to add pages to a document. The pages may follow a structured hierarchy, e.g., with a chapter, followed by a section, and then other pages of the chapter. Accordingly, the electronic document that is exported with this application may be referred to as a structured electronic document. The glossary generator **2445** generates an entry in the glossary based on user interaction with the glossary tool **2408**. An example of adding a glossary entry is described above by reference to FIG. **20**.

The document publisher **2420** of some embodiments generates a final version of an electronic document (e.g., an e-book in either a standardized or proprietary format) for sending out (e.g., via the network interface **2410**) to a content distribution system. In some embodiments, the document publisher **2420** creates the electronic document and/or a sample version of the electronic document, and a separate application connects to the content distribution system in order to upload (publish) the document. Document publisher **2420** of some embodiments includes various components to prepare a document for publication. In the example illustrated in FIG. **24**, the document publisher **2420** includes a sample generator **2416** to generate a sample document, a document exporter **2418** to export the document, a version information module **2422** to specify a version number for the document, and a document analyzer **2424** to analyze the document for errors.

While many of the features of document authoring application **2400** have been described as being performed by one module (e.g., the UI interaction and generation module **2405**, the document publisher **2420**, etc.), one of ordinary skill in the art will recognize that the functions described herein might be split up into multiple modules. Similarly, functions described as being performed by multiple different modules might be performed by a single module in some embodiments (e.g., the preview generator **2425** might actually be part of the document publisher **2420**).

B. Example System Architecture

FIG. **25** illustrates an example system architecture **2500** for distributing documents. The figure includes a user device **2505** to author and publish documents, an end-user device **2540** to view the published documents, and a content distribution system **2515** to distribute the documents. To simplify the description, only two devices **2505** and **2540** are shown in this figure. However, there can be multiple such devices in the system.

The user device **2505** is used to author and publish documents. The device executes several applications, namely the document authoring application **2400** and the document delivery application **2510**, for authoring and publishing documents. The document authoring application **2400** is the same as the one described above by reference to FIG. **24**. Different from the document authoring application, the document delivery application **2510** of some embodiments is used to input additional data regarding the publication and deliver the publication (e.g., the package bundle that includes the document, sample document, and other associated items) to the content distribution system **2515**. An example of the document delivery application is described above by reference to FIG. **11**. As mentioned above, the document generation and delivery features are provided in one single application in some embodiments.

The content distribution system **2515** facilitates the distribution of content to different user devices. In this example, the content distribution system **2515** receives the publication from the user device **2505** and distributes it to end-user devices (e.g., consumer electronic devices), such as the end-use device **2540** illustrated in FIG. **25**. The content distribution system of some embodiments distributes a variety of different types of content. Examples of such types of content include electronic documents (e.g., books, newspapers, comic books, magazines, newsletters, etc.), music, movies, and television shows.

In distributing the content, the content distribution system **2515** may utilize a number of content distribution servers **2520**. These servers may manage different control data associated with distributing content. For example, a content distribution server may access account information in an accounts database **2530**. In some embodiments, the user account can be associated with not only a publishing account but also an account to download and/or purchase items from the content distribution system. As mentioned above, the content distribution system **2515** of some embodiments enables an entity (e.g., a person, a company, an organization) to create a paid distribution account and/or a free distribution account. The paid account allows the entity to sell documents and/or offer documents for free on the content distribution system's document store. The paid account might require the entity to provide banking and tax information in order for the entity to receive payment. Different from the paid account, a free distribution account only allows the entity to offer documents for free download in the document store.

As shown in FIG. **25**, the content distribution servers **2520** maintain data related to electronic documents. Several examples of such data are described above by FIG. **11**. The content distribution servers **2520** may also maintain version information (e.g., a document's version number, and the date of last update). In addition, the content distribution servers **2520** may store the assets (e.g., documents) in several different storages **2535**. That is, the content distribution system **2515** may include several storage servers **2535** for storing the content to be distributed to the user devices.

The end-user device **2540** can be any number of different types of devices such as a tablet, a smart phone, a desktop computer, a laptop, etc. To download and present content on the device, the end-user device **2540** may include a content management application **2545** and a digital viewing application **2550**. The content management application **2545** of some embodiments is used to manage the content on the end-user device. For example, the user can use this application to browse for content, purchase content, download content, update previously downloaded content, etc. On the other hand, the digital content viewing application **2550** is used to view content. In some embodiments, the content management application is provided as part of the content viewing application. For example, the user can use the content viewing application **2550** to purchase content, download content, and update content. Several examples of such an integrated application are described above by reference to FIG. **15-17**.

One of ordinary skill in the art would understand that the system architecture **2500** is one example architecture and can be modifies in a number of different ways. For example, the content distribution system may communicate with third-party storage servers to store the vast amount of content that it distributes to different client devices. The content distribution system may include different servers to manage different types of data, such as account data and content data.

C. Example Data Structures

FIG. **26** conceptually illustrates several example data structures associated with a publication. As shown, the figure includes a publication data structure **2600**, and several asset data structures **2605** and **2610**. The publication data structure **2600** of some embodiments contains different information (e.g., metadata) related to publishing a document. Here, the publication data structure **2600** includes a publication identification (ID) that identifies the publication and an asset identification that identifies an asset or document that is being published. The publication may include another asset ID for a sample document that is being published with the full-length document.

As shown, the publication data structure **2600** is associated with several other data related to the publication. Specifically, it includes version information (e.g., a version number), date updated, description, and pricing information. The publication data structure **2600** can be associated with other data, including language, ISBN, title, subtitle, imprint, series name, number in series, print length, etc. The data structure **2600** may also be associated with author information, target audience, related products, rights, etc. Many of these data are described above by reference to FIG. **11**.

In the example illustrated in FIG. **26**, the publication data structure **2600** is associated with two asset data structures **2605** and **2610**. Specifically, the asset data structure **2605** represents the full-length document, and the asset data structure **2610** represents the sample document. Each of these asset data structures includes an asset ID and a reference to the asset (e.g., a reference to the document file). Each asset data structure can also include other data such as name of the asset, date created, etc.

In some embodiments, these data structures are used to publish the document to a document store of the content distribution system. For example, the content distribution system might use the data associated with the data structure **2600** to list the document on its store with pricing information, description, etc. The data contained in these data structures may be provided to the content distribution server as part of a package bundle that includes the full-length document and the sample document.

One of ordinary skill in the art will recognize that the data structures are examples data structure than can be modified in a number of different ways. For example, instead of the publication data structure **2600**, the version information and/or the update data can be associated with the asset data structure **2605**. In addition, the publication data structure **2600** can be associated with other different data structures, such as those that contain data relating to author information, target audience, related products, rights, etc.

VI. Electronic Systems

Many of the above-described features and applications are implemented as software processes that are specified as a set of instructions recorded on a computer readable storage medium (also referred to as computer readable medium). When these instructions are executed by one or more computational or processing unit(s) (e.g., one or more processors, cores of processors, or other processing units), they cause the processing unit(s) to perform the actions indicated in the instructions. Examples of computer readable media include, but are not limited to, CD-ROMs, flash drives, random access memory (RAM) chips, hard drives, erasable programmable read-only memories (EPROMs), electrically erasable programmable read-only memories (EEPROMs), etc. The computer readable media does not include carrier waves and electronic signals passing wirelessly or over wired connections.

In this specification, the term "software" is meant to include firmware residing in read-only memory or applications stored in magnetic storage, which can be read into memory for processing by a processor. Also, in some embodiments, multiple software inventions can be implemented as sub-parts of a larger program while remaining distinct software inventions. In some embodiments, multiple software inventions can also be implemented as separate programs. Finally, any combination of separate programs that together implement a software invention described here is within the scope of the invention. In some embodiments, the software programs, when installed to operate on one or more electronic systems, define one or more specific machine implementations that execute and perform the operations of the software programs.

A. Mobile Device

The applications of some embodiments operate on mobile devices. These applications include the content viewing application, content authoring application, content delivery application. FIG. **27** is an example of an architecture **2700** of such a mobile computing device. Examples of mobile computing devices include smartphones, tablets, laptops, etc. As shown, the mobile computing device **2700** includes one or more processing units **2705**, a memory interface **2710** and a peripherals interface **2715**.

The peripherals interface **2715** is coupled to various sensors and subsystems, including a camera subsystem **2720**, a wireless communication subsystem(s) **2725**, an audio subsystem **2730**, an I/O subsystem **2735**, etc. The peripherals interface **2715** enables communication between the processing units **2705** and various peripherals. For example, an orientation sensor **2745** (e.g., a gyroscope) and an acceleration sensor **2750** (e.g., an accelerometer) is coupled to the peripherals interface **2715** to facilitate orientation and acceleration functions.

The camera subsystem **2720** is coupled to one or more optical sensors **2740** (e.g., a charged coupled device (CCD) optical sensor, a complementary metal-oxide-semiconductor (CMOS) optical sensor, etc.). The camera subsystem **2720** coupled with the optical sensors **2740** facilitates camera functions, such as image and/or video data capturing. The wireless communication subsystem **2725** serves to facilitate communication functions. In some embodiments, the wireless communication subsystem **2725** includes radio frequency receivers and transmitters, and optical receivers and transmitters (not shown in FIG. **27**). These receivers and transmitters of some embodiments are implemented to operate over one or more communication networks such as a GSM network, a Wi-Fi network, a Bluetooth network, etc. The audio subsystem **2730** is coupled to a speaker to output audio (e.g., to output different sound effects associated with different image operations). Additionally, the audio subsystem **2730** is coupled to a microphone to facilitate voice-enabled functions, such as voice recognition, digital recording, etc.

The I/O subsystem **2735** involves the transfer between input/output peripheral devices, such as a display, a touch screen, etc., and the data bus of the processing units **2705** through the peripherals interface **2715**. The I/O subsystem **2735** includes a touch-screen controller **2755** and other input controllers **2760** to facilitate the transfer between input/output peripheral devices and the data bus of the processing units **2705**. As shown, the touch-screen controller **2755** is coupled to a touch screen **2765**. The touch-screen controller **2755** detects contact and movement on the touch screen **2765** using any of multiple touch sensitivity technologies. The other input controllers **2760** are coupled to other input/control devices, such as one or more buttons. Some embodiments include a near-touch sensitive screen and a corresponding controller that can detect near-touch interactions instead of or in addition to touch interactions.

The memory interface **2710** is coupled to memory **2770**. In some embodiments, the memory **2770** includes volatile memory (e.g., high-speed random access memory), non-volatile memory (e.g., flash memory), a combination of volatile and non-volatile memory, and/or any other type of memory. As illustrated in FIG. **27**, the memory **2770** stores an operating system (OS) **2772**. The OS **2772** includes instructions for handling basic system services and for performing hardware dependent tasks.

The memory **2770** also includes communication instructions **2774** to facilitate communicating with one or more additional devices; graphical user interface instructions **2776** to facilitate graphic user interface processing; image processing instructions **2778** to facilitate image-related processing and functions; input processing instructions **2780** to facilitate input-related (e.g., touch input) processes and functions; audio processing instructions **2782** to facilitate audio-related processes and functions; and camera instructions **2784** to facilitate camera-related processes and functions. The instructions described above are merely exemplary and the memory **2770** includes additional and/or other instructions in some embodiments. For instance, the memory for a smartphone may include phone instructions to facilitate phone-related processes and functions. The above-identified instructions need not be implemented as separate software programs or modules. Various functions of the mobile computing device can be implemented in hardware and/or in software, including in one or more signal processing and/or application specific integrated circuits.

While the components illustrated in FIG. **27** are shown as separate components, one of ordinary skill in the art will recognize that two or more components may be integrated into one or more integrated circuits. In addition, two or more components may be coupled together by one or more communication buses or signal lines. Also, while many of the functions have been described as being performed by one component, one of ordinary skill in the art will realize that the functions described with respect to FIG. **27** may be split into two or more integrated circuits.

B. Computer System

FIG. **28** conceptually illustrates another example of an electronic system **2800** with which some embodiments of the invention are implemented. The electronic system **2800** may be a computer (e.g., a desktop computer, personal computer, tablet computer, etc.), phone, PDA, or any other sort of electronic or computing device. Such an electronic system includes various types of computer readable media and interfaces for various other types of computer readable media. Electronic system **2800** includes a bus **2805**, processing unit(s) **2810**, a graphics processing unit (GPU) **2815**, a system memory **2820**, a network **2825**, a read-only memory **2830**, a permanent storage device **2835**, input devices **2840**, and output devices **2845**.

The bus **2805** collectively represents all system, peripheral, and chipset buses that communicatively connect the numerous internal devices of the electronic system **2800**. For instance, the bus **2805** communicatively connects the processing unit(s) **2810** with the read-only memory **2830**, the GPU **2815**, the system memory **2820**, and the permanent storage device **2835**.

From these various memory units, the processing unit(s) **2810** retrieves instructions to execute and data to process in order to execute the processes of the invention. The processing unit(s) may be a single processor or a multi-core processor in different embodiments. Some instructions are passed to and executed by the GPU **2815**. The GPU **2815** can offload various computations or complement the image processing provided by the processing unit(s) **2810**.

The read-only-memory (ROM) **2830** stores static data and instructions that are needed by the processing unit(s) **2810** and other modules of the electronic system. The permanent storage device **2835**, on the other hand, is a read-and-write memory device. This device is a non-volatile memory unit that stores instructions and data even when the electronic system **2800** is off. Some embodiments of the invention use a mass-storage device (such as a magnetic or optical disk and its corresponding disk drive) as the permanent storage device **2835**.

Other embodiments use a removable storage device (such as a floppy disk, flash memory device, etc., and its corresponding drive) as the permanent storage device. Like the permanent storage device **2835**, the system memory **2820** is a read-and-write memory device. However, unlike storage device **2835**, the system memory **2820** is a volatile read-and-write memory, such a random access memory. The system memory **2820** stores some of the instructions and data that the processor needs at runtime. In some embodiments, the invention's processes are stored in the system memory **2820**, the permanent storage device **2835**, and/or the read-only memory

2830. For example, the various memory units include instructions for processing multimedia clips in accordance with some embodiments. From these various memory units, the processing unit(s) **2810** retrieves instructions to execute and data to process in order to execute the processes of some embodiments.

The bus **2805** also connects to the input and output devices **2840** and **2845**. The input devices **2840** enable the user to communicate information and select commands to the electronic system. The input devices **2840** include alphanumeric keyboards and pointing devices (also called "cursor control devices"), cameras (e.g., webcams), microphones or similar devices for receiving voice commands, etc. The output devices **2845** display images generated by the electronic system or otherwise output data. The output devices **2845** include printers and display devices, such as cathode ray tubes (CRT) or liquid crystal displays (LCD), as well as speakers or similar audio output devices. Some embodiments include devices such as a touchscreen that function as both input and output devices.

Finally, as shown in FIG. **28**, bus **2805** also couples electronic system **2800** to a network **2825** through a network adapter (not shown). In this manner, the computer can be a part of a network of computers (such as a local area network ("LAN"), a wide area network ("WAN"), or an Intranet, or a network of networks, such as the Internet. Any or all components of electronic system **2800** may be used in conjunction with the invention.

Some embodiments include electronic components, such as microprocessors, storage and memory that store computer program instructions in a machine-readable or computer-readable medium (alternatively referred to as computer-readable storage media, machine-readable media, or machine-readable storage media). Some examples of such computer-readable media include RAM, ROM, read-only compact discs (CD-ROM), recordable compact discs (CD-R), rewritable compact discs (CD-RW), read-only digital versatile discs (e.g., DVD-ROM, dual-layer DVD-ROM), a variety of recordable/rewritable DVDs (e.g., DVD-RAM, DVD-RW, DVD+RW, etc.), flash memory (e.g., SD cards, mini-SD cards, micro-SD cards, etc.), magnetic and/or solid state hard drives, read-only and recordable Blu-Ray® discs, ultra density optical discs, any other optical or magnetic media, and floppy disks. The computer-readable media may store a computer program that is executable by at least one processing unit and includes sets of instructions for performing various operations. Examples of computer programs or computer code include machine code, such as is produced by a compiler, and files including higher-level code that are executed by a computer, an electronic component, or a microprocessor using an interpreter.

While the above discussion primarily refers to microprocessor or multi-core processors that execute software, some embodiments are performed by one or more integrated circuits, such as application specific integrated circuits (ASICs) or field programmable gate arrays (FPGAs). In some embodiments, such integrated circuits execute instructions that are stored on the circuit itself. In addition, some embodiments execute software stored in programmable logic devices (PLDs), ROM, or RAM devices.

As used in this specification and any claims of this application, the terms "computer", "server", "processor", and "memory" all refer to electronic or other technological devices. These terms exclude people or groups of people. For the purposes of the specification, the terms display or displaying means displaying on an electronic device. As used in this specification and any claims of this application, the terms "computer readable medium," "computer readable media," and "machine readable medium" are entirely restricted to tangible, physical objects that store information in a form that is readable by a computer. These terms exclude any wireless signals, wired download signals, and any other ephemeral signals.

While the invention has been described with reference to numerous specific details, one of ordinary skill in the art will recognize that the invention can be embodied in other specific forms without departing from the spirit of the invention. For instance, many of the figures illustrate various touch gestures (e.g., taps, double taps, swipe gestures, press and hold gestures, etc.). However, many of the illustrated operations could be performed via different touch gestures (e.g., a swipe instead of a tap, etc.) or by non-touch input (e.g., using a cursor controller, a keyboard, a touchpad/trackpad, a near-touch sensitive screen, etc.). In addition, a number of the figures (including FIGS. **12-14**, **18**, and **23**) conceptually illustrate processes. The specific operations of these processes may not be performed in the exact order shown and described. The specific operations may not be performed in one continuous series of operations, and different specific operations may be performed in different embodiments. Furthermore, the process could be implemented using several sub-processes, or as part of a larger macro process. Thus, one of ordinary skill in the art would understand that the invention is not to be limited by the foregoing illustrative details, but rather is to be defined by the appended claims.

While the invention has been described with reference to numerous specific details, one of ordinary skill in the art will recognize that the invention can be embodied in other specific forms without departing from the spirit of the invention. For example, one of ordinary skill in the art will understand that many of the UI items of FIGS. **1-11**, **15-17**, and **19-22** can also be activated and/or set by a cursor control device (e.g., a mouse or trackball), a stylus, keyboard, a finger gesture (e.g., placing, pointing, tapping one or more fingers) near a near-touch sensitive screen, or any other control system in some embodiments. Thus, one of ordinary skill in the art would understand that the invention is not to be limited by the foregoing illustrative details, but rather is to be defined by the appended claims.

What is claimed is:

1. A method comprising:

displaying pages of a book on a display of a computing device;

providing, on said display, a step-by-step guide for publishing the book, the guide for sequentially presenting a plurality of publishing steps according to a workflow order for publishing the book and for indicating a current publishing step, the plurality of publishing steps comprising identifying errors and exporting the book for publication; and

at each particular publishing step, providing a set of user interface (UI) items relating to the particular publishing step, the set of UI items for at least one of the publishing steps based on a set of properties of the book that are related to the particular publishing step,

wherein a particular UI item is available for proceeding toward publishing when there are no identified errors or when the identified errors are non-blocking errors that do not prevent the book from being published, wherein the particular UI item is unavailable when the identified errors include at least one blocking error that needs to be resolved before publishing the book.

2. The method of claim **1**, wherein the identified errors are listed in a display.

3. The method of claim **2**, wherein one or more of the errors are listed on the display with at least one of an error type, a description of the error, and a page number of the book where the error was found.

4. The method of claim **1**, wherein the blocking errors are displayed differently from the non-blocking errors on the display.

5. The method of claim **1**, wherein the step by step guide is further for signing into a user's publishing account or for directing the user to create a new account if the user does not have an account.

6. A non-transitory machine readable medium storing a program that when executed by at least one processing unit provides a user interface (UI), the UI comprising:

a publishing tool for preparing a book for publication by a content publisher and for exporting the book for publication,

wherein the publishing tool comprises a first display section, a second display section and a particular UI item for a display of a computing device,

the first display section comprising a step-by-step guide for sequentially presenting a plurality of publishing steps according to a workflow order for publishing the book and for indicating a current publishing step,

the second display section for providing analysis of each step and identifying any error associated with the current publishing step, wherein to facilitate resolution of the error, the second display section presents for an identified error (i) an error type and (ii) a description of the error, wherein selection of at least one of the error's type and the error's description results in display of a page of the book where the identified error was found,

the particular UI item for proceeding toward publishing, wherein the particular UI item is available when there is no identified error or when the identified error is a non-blocking error that does not prevent the book from being published, wherein the particular UI item is unavailable when the identified error is a blocking error that needs to be resolved before publishing the book.

7. The non-transitory machine readable medium of claim **6**, wherein the publishing tool is further for specifying version information for the book.

8. The non-transitory machine readable medium of claim **6**, wherein the publishing tool is further for specifying an option to generate a sample book from the book.

9. The non-transitory machine readable medium of claim **6**, wherein the book is associated with a cover art, wherein the program creates a package that includes the exported book and the cover art for delivery to the content publisher.

10. The non-transitory machine readable medium of claim **6**, wherein the publishing tool is further for delivering the exported book to the content publisher.

11. The non-transitory machine readable medium of claim **6**, wherein the program is a content authoring application, wherein a separate content delivery application delivers the exported book to the content publisher, wherein the publishing tool comprises a selectable item that when selected opens the content delivery application to display metadata associated with the exported book.

12. A method of defining a user interface (UI) for a book publishing application, the method comprising:

defining, at a computing device, a display area for displaying pages of a book; and

defining, at the computing device, a publishing tool for preparing a book for publication by a content publisher and for exporting the book for publication, wherein the publishing tool comprises a first display section, a second display section, and a particular UI item,

the first display section comprising a step-by-step guide for (i) sequentially presenting a plurality of publishing steps according to a workflow order for publishing the book; (ii) providing a visual indication of a current publishing step; and (iii) providing a visual indication for each completed publishing step,

the second display section for providing analysis of each step and identifying any error associated with the current publishing step indicated in the first display section,

the UI item for proceeding toward publishing, wherein the particular UI item is available when there is no identified error or when the identified error is a non-blocking error that does not prevent the book from being published, wherein the particular UI item is unavailable when the identified error is a blocking error that needs to be resolved before publishing the book.

13. The method of claim **12**, wherein the publishing tool comprises a display section for displaying a list of errors.

14. The method of claim **13**, wherein one or more of the errors are listed in the section with at least one of an error type, a description of the error, and a page number of the book where the error was found.

15. A non-transitory machine readable medium storing a program for execution by at least one processing unit, the program comprising sets of instructions for:

displaying pages of a book on a display of a computing device; and

providing, on said display, a step-by-step guide for publishing the book, the guide for sequentially presenting a plurality of publishing steps according to a workflow order for publishing the book and for indicating a current publishing step, the plurality of publishing steps comprising identifying errors and exporting the book for publication; and

at each particular publishing step, providing a set of user interface (UI) items relating to the particular publishing step, the set of UI items for at least one of the publishing steps based on a set of properties of the book that are relevant to the particular publishing step,

wherein a particular UI item is available for proceeding toward publishing when there are no identified errors or when the identified errors are non-blocking errors that do not prevent the book from being published, wherein the particular UI item is unavailable when the identified errors include at least one blocking error that needs to be resolved before publishing the book.

16. The non-transitory machine readable medium of claim **15**, wherein the program further comprises a set of instructions for displaying a list of errors.

17. The non-transitory machine readable medium of claim **15**, wherein one or more of the errors are displayed with at least one of an error type, a description of the error, and a page number of the book where the error was found.

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